We Create Chemistry

Building Blocks and Reagents for our Customers' Needs

BASF
We create chemistry

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BASF – We Create Chemistry

BASF is the world's leading chemical company. Its portfolio ranges from chemicals, plastics, performance products and crop protection products to oil and gas.
We combine economic success, social responsibility and environmental protection. Through science and innovation we enable our customers in almost all industries to meet the current and future needs of society. Our products and system solutions contribute to conserving resources, ensuring healthy food and nutrition and helping to improve the quality of life. We have summed up this contribution in our corporate purpose: We create chemistry for a sustainable future.

Top Intermediates Supplier

The BASF Group's Intermediates division develops, produces and markets a comprehensive portfolio of more than 600 intermediates around the world. The most important of the division's product groups include amines, diols, polyalcohols, acids and specialties. Among other applications, intermediates are used as starting materials for coatings, plastics, pharmaceuticals, textile fibers, detergents and crop protectants. Innovative intermediates from BASF help to improve the properties of final products and the efficiency of production processes. The ISO 9001:2000-certified Intermediates division operates plants at production sites in Europe, Asia, and the Americas.

Content

Foreword

Dear customers and future customers:

Information about our new, enhanced and proven chemical intermediates is what awaits you in this revised version of our BASF's Intermediates product catalog. This comprehensive reference work is meant to provide an overview of our globally unique portfolio of intermediates. A review of the book has become necessary because we are constantly developing new products and improving existing intermediates. This is our contribution to enhancing our customers' products and making them more successful.

In the Intermediates Division, we keep an ever tighter focus on the market, and we target our activities clearly at change and innovation. We believe that developing innovations close to our customers is a vital key to shaping the future. Our approach is based on the unparalleled expertise available in our BASF 'Verbund'. As our customers' long-term, reliable partner, we seek to use this expertise to contribute purposefully and sustainably to their success.

Our updated, extended range of products offers you many options for selecting the optimal solution to your production requirements. If you cannot find a product in this catalog that is just right for your needs, then please contact us. We will be happy to develop customized solutions that meet your specific requirements. You may telephone us or contact us via e-mail (info.intermediates@basf.com). More details on our portfolio offers the website www.basf.com/productfinder. Here you can take a closer look at BASF, the world's leading chemical company.

We do not think we have succeeded unless our intermediates help you to succeed in your market: so don't wait too long before you talk to us. We look forward to hearing from you.

Your BASF Intermediates team

Handling notes

Our new product catalog contains new, proven and enhanced products. Mainly, pure compounds are listed. If you need specific mixtures, just ask, we'll be glad to help you.

There are several different ways for you to find the right product for your processes:

- Search for the English name (indexed in alphabetical order), or
- search for the CAS number (indexed by ascending numbers).

The table section also includes some common trivial names and IUPAC-compliant product names.

Additionally, you will find some information on registration in the following chemical inventories: REACH (EU), TSCA (USA), IECSC (China) and ENCS/IS (Japan).

Please note

The data contained in this publication are based on our current knowledge and provide no legally binding warranties or guarantees. In view of the many factors that may affect the application of our products, these data do not relieve processors from carrying out their own investigations and tests. Any proprietary third-party rights and all existing laws and regulations must be respected. The safety data are provided for information only and are no substitute for the legally binding material safety data sheet. The current material safety data sheet for each product is available on request from your supplier, or directly from BASF (info.intermediates@basf.com).

We offer no guarantees for the information and data contained herein.

Guidelines

Customer orientation

Intensive research and a close focus on our customers' needs are the foundations of our business. In order to constantly expand our portfolio we fulfill our customers' specific needs. We place great emphasis on flexibility and believe that anything is possible – from the smallest amounts on a laboratory scale, all the way up to use in bulk production lines. Thanks to our broad and innovative range of intermediates, we have competencies in all markets. This fact allows us to make our products globally available. For us, fast and reliable delivery is of paramount importance.

Reliable partnership

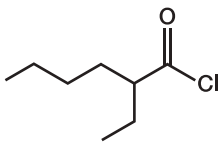
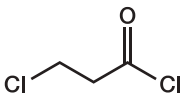
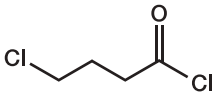
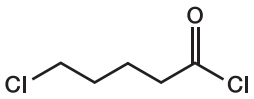
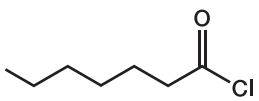
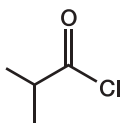
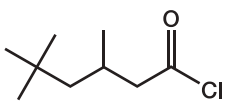
Our broad range of products, multitude of comprehensive solutions, and high innovation potential all translate into the added value that BASF brings to you. As our customer, you will benefit from the greatest assurance of success for your processes. And, looking forward, you can also rely on us to stand by your side with a comprehensive offering in the future.

Superior quality

The BASF Intermediates Division is ISO 9001 certified. We offer a particularly broad range of chem-ical products. In addition, we develop innovative technologies and procedures that will allow you to integrate our products seamlessly and cost effectively into your existing processes. Throughout, we support our customers with an extensive range of services. Our combination of three building blocks for your success – excellent products, technologies, and services – demonstrates our commitment to a unique level of quality that has made BASF the world's leading chemical company.

1 Acid Chlorides, Alkyl Chlorides and Chloroformates

1.1 Acid Chlorides

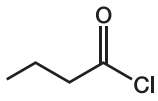
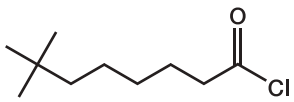
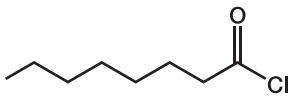
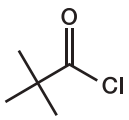
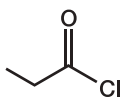
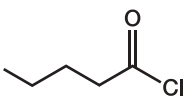
No.	Product [CAS Registry No.]	Formula
1.1.1	2-Ethylhexanoyl chloride [760-67-8]	
1.1.2	3-Chlorpropionyl chloride [625-36-5]	
1.1.3	4-Chlorobutyryl chloride [4635-59-0]	
1.1.4	5-Chlorovaleryl chloride [1575-61-7]	
1.1.5	Heptane acid chloride [2528-61-2]	
1.1.6	Isobutyryl chloride [79-30-1]	
1.1.7	Isononanoyl chloride [36727-29-4]	

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 162.66 g/mol d 0.953 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 73 – 75 °C (23 hPa) m.p. < –75 °C	H290; H302; H314; H317; H330; EUH071 Danger		REACH; TSCA; IECSC; ENCS/IS
M 126.97 g/mol d 1.33 g/cm³ (13 °C) % (w/w) min. 98.0 b.p. 144 °C m.p. –32 °C	H226; H302; H314; H330 Danger		REACH; TSCA; IECSC; ENCS/IS
M 141.00 g/mol d 1.26 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 120 – 160 °C m.p. –49 °C	H302; H314; H330 Danger		REACH; TSCA; IECSC; ENCS/IS
M 155.02 g/mol d 1.2056 g/cm³ (20 °C) % (w/w) min. 97.5 b.p. 80 °C (15 hPa) m.p. –58 °C	H290; H302; H314 Danger		REACH; IECSC
M 148.63 g/mol d 0.9615 g/cm³ (20 °C) % (w/w) min. 98.5 b.p. 173 °C m.p. < –50 °C	H314; H330; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M 106.55 g/mol d 1.02 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 92 – 94 °C m.p. < –70 °C	H225; H290; H302; H314; H330 Danger		REACH; TSCA; IECSC; ENCS/IS
M 176.69 g/mol d 0.94 g/cm³ (20 °C) % (w/w) min. 98.0 b.p. 192 °C m.p. < –50 °C	H290; H302; H314; H317; H330; H412; EUH071 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

1.1 Acid Chlorides

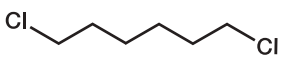
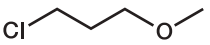
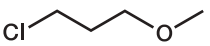
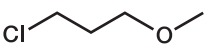
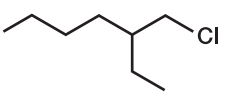
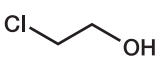
No.	Product [CAS Registry No.]	Formula
1.1.8	Isovaleroyl chloride [108-12-3]	
1.1.9	Neodecanoyl chloride [40292-82-8]	
1.1.10	Octanoyl chloride [111-64-8]	
1.1.11	Pivaloyl chloride [3282-30-2]	
1.1.12	Propionyl chloride [79-03-8]	
1.1.13	Valeroyl chloride [638-29-9]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	120.58 g/mol 0.98 g/cm³ (20 °C) min. 98.5 114 – 116 °C < –70 °C	H225; H290; H314; H332; H412 Danger		TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	190.71 g/mol 0.95 g/cm³ (20 °C) min. 99.0 100 °C (28 hPa) < –50 °C	H290; H302; H314; H317; H330; H412; EUH071 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	162.66 g/mol 0.949 g/cm³ (20 °C) min. 98.0 196 °C –63 °C	H290; H315; H317; H318; H330; EUH071 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	120.58 g/mol 0.98 g/cm³ (20 °C) min. 99.0 103 – 108 °C –57 °C	H225; H290; H302; H314; H330; H412; EUH071 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	92.52 g/mol 1.06 g/cm³ (20 °C) min. 99.5 77 – 79 °C –94 °C	H225; H314; H332; EUH014 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	120.58 g/mol 0.99 g/cm³ (20 °C) min. 99.0 125 – 127 °C < –50 °C	H226; H290; H314; H332; H412 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

1.2 Aliphatic Chlorides

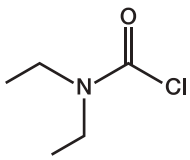
No.	Product [CAS Registry No.]	Formula
1.2.1	1,6-Dichlorohexane [2163-00-0]	
1.2.2	1-Chloro-3-methoxypropane (standard) [36215-07-3]	
1.2.3	1-Chloro-3-methoxypropane > 99% [36215-07-3]	
1.2.4	1-Chloro-3-methoxypropane Pharma Premium [36215-07-3]	
1.2.5	2-Ethylhexylchloride [123-04-6]	
1.2.6	Ethylene chlorohydrine [107-07-3]	

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 155.07 g/mol d 1.07 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 208 °C m.p. –13 °C	H412		REACH; TSCA; IECSC; ENCS/IS
M 108.57 g/mol d 0.9979 g/cm³ (20 °C) % (w/w) min. 97.0 b.p. 111 °C m.p. < –70 °C	H225; H332 Danger		REACH
M 108.57 g/mol d 0.9979 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 111 °C m.p. < –70 °C	H225; H332 Danger		REACH
M 108.57 g/mol d 0.9979 g/cm³ (20 °C) % (w/w) min. 99.8 b.p. 111 °C m.p. < –70 °C	H225; H332 Danger		REACH
M 148.68 g/mol d 0.882 g/cm³ (20 °C) % (w/w) min. 98.0 b.p. 172 °C m.p. < –20 °C	H226; H315; H411 Warning		REACH; TSCA; IECSC; ENCS/IS
M 80.51 g/mol d 1.2 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 128.7 °C m.p. –63 °C	H226; H300; H310; H330; H411 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

1.3 Carbamoyl Chlorides

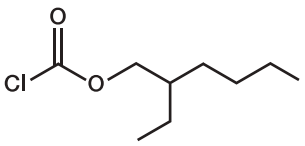
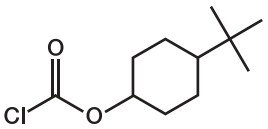
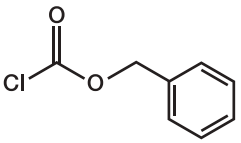
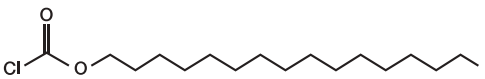
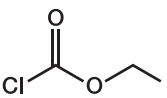
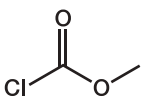
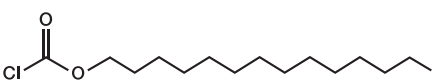
No.	Product [CAS Registry No.]	Formula
1.3.1	Diethylcarbamoyl chloride [88-10-8]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	135.59 g/mol 1.07 g/cm³ (20 °C) min. 98.0 121 – 123 °C (133 hPa) –32 °C	H302; H315; H319; H332; H335; H351 Warning		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

1.4 Chloroformates

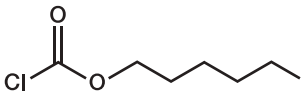
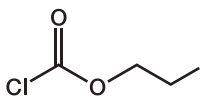
No.	Product [CAS Registry No.]	Formula
1.4.1	2-Ethylhexyl chloroformate [24468-13-1]	
1.4.2	4-tert.-Butylcyclohexyl chloroformate [42125-46-2]	
1.4.3	Benzyl chloroformate [501-53-1]	
1.4.4	Cetyl chloroformate RD [26272-90-2]	
1.4.5	Ethyl chloroformate [541-41-3]	
1.4.6	Methyl chloroformate [79-22-1]	
1.4.7	Myristyl chloroformate [56677-60-2]	

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 192.69 g/mol d 0.988 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. > 120 °C m.p. < –75 °C	H290; H315; H317; H330 Danger		REACH; TSCA; IECSC; ENCS/IS
M 218.72 g/mol d 1.05 g/cm³ (20 °C) % (w/w) min. 97.0 b.p. 90 – 100 °C (5 hPa) m.p. –20 – –10 °C	H314; H331; H412; EUH071 Danger		REACH; TSCA; IECSC
M 170.60 g/mol d 1.21 g/cm³ (20 °C) % (w/w) min. 97.0 b.p. 30 °C m.p. < –18 °C	H314; H330; H350; H373; H400; H410; EUH071 Danger		REACH; TSCA; IECSC; ENCS/IS
M 304.90 g/mol d 0.93 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 120 °C m.p. 15 °C	H290; H315; H317 Warning		REACH; TSCA; ENCS/IS
M 108.52 g/mol d 1.14 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 93 – 95 °C m.p. –80 °C	H225; H290; H301; H314; H330; EUH071 Danger		REACH; TSCA; IECSC; ENCS/IS
M 94.50 g/mol d 1.237 g/cm³ (15 °C) % (w/w) min. 99.0 b.p. 71 – 72 °C m.p. –61 °C	H225; H290; H300; H312; H314; H330; EUH071 Danger		REACH; TSCA; IECSC; ENCS/IS
M 276.85 g/mol d 0.94 g/cm³ (20 °C) % (w/w) min. 98.0 b.p. not available m.p. 4 °C	H315 Warning		REACH

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

1.4 Chloroformates

No.	Product [CAS Registry No.]	Formula
1.4.8	n-Hexyl chloroformate [6092-54-2]	
1.4.9	Propyl chloroformate [109-61-5]	

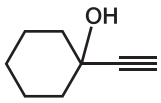
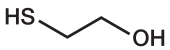
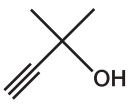
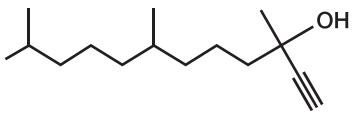
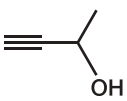
Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	164.63 g/mol 1.007 g/cm³ (20 °C) min. 99.0 60 °C (9 hPa) < –70 °C	H315; H330; H411 Danger		REACH; TSCA; IECSC
M d % (w/w) b.p. m.p.	122.55 g/mol 1.09 g/cm³ (20 °C) min. 99.0 106 °C < –70 °C	H225; H290; H302; H314; H330; EUH071 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

2 Alcohols, Diols and Polyols

2.1 Mono Alcohols

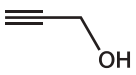
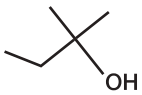
No.	Product [CAS Registry No.]	Formula
2.1.1	1-Ethynyl-1-cyclohexanol [78-27-3]	
2.1.2	2-Mercaptoethanol [60-24-2]	
2.1.3	2-Methyl-3-butyn-2-ol [115-19-5]	
2.1.4	3,7,11-Trimethyldodecyn-3-ol [1604-35-9]	
2.1.5	3-Butyne-2-ol 55% sol. [2028-63-9]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	124.18 g/mol 0.9760 g/cm³ (20 °C) min. 99.0 179.75 °C 28 °C	H302; H311; H315; H319 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	78.14 g/mol 1.12 g/cm³ (20 °C) min. 99.0 154 – 161 °C < –50 °C	H301; H310; H315; H317; H318; H331; H373; H400; H410 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	84.12 g/mol 0.86 g/cm³ (20 °C) min. 98.5 102 – 105 °C 3 °C	H225; H302; H318 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	224.39 g/mol 0.849 g/cm³ (20 °C) not available 145 °C (13 hPa) –65 °C	H302; H315; H400; H410 Warning		REACH; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	70.09 g/mol 0.95 g/cm³ (20 °C) min. 55.0 95 – 96 °C –12 °C	H226; H301; H310; H315; H319; H330; H412 Danger		REACH; TSCA; IECSC

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

2.1 Mono Alcohols

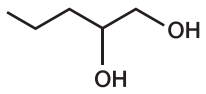
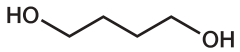
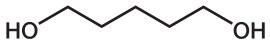
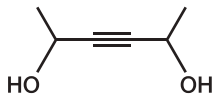
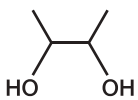
No.	Product [CAS Registry No.]	Formula
2.1.6	Propargyl alcohol highly conc. [107-19-7]	
2.1.7	tert.-Amyl alcohol [75-85-4]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	56.06 g/mol 0.949 g/cm³ (23 °C) min. 99.3 114 – 115 °C –52 – –48 °C	H226; H301; H310; H314; H330; H411 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	88.15 g/mol 0.806 g/cm³ (20 °C) min. 99.0 102.4 °C –8.4 °C	H225; H312; H315; H318; H332; H335 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

2.2 Diols and Polyols

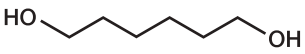
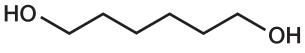
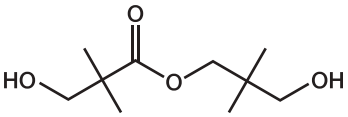
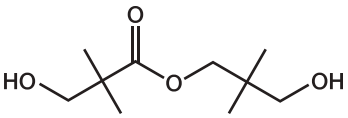
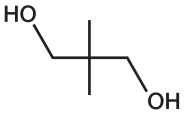
No.	Product [CAS Registry No.]	Formula
2.2.1	1,2-Pentanediol [5343-92-0]	
2.2.2	1,4-Butanediol [110-63-4]	
2.2.3	1,5-Pentanediol [111-29-5]	
2.2.4	3-Hexyne-2,5-diol [3031-66-1]	
2.2.5	Butane-2,3-diol [513-85-9]	

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 104.15 g/mol d 0.97 g/cm³ (20 °C) % (w/w) min. 98.0 b.p. 208 – 210 °C m.p. < –40 °C	H318 Danger		REACH; TSCA; IECSC; ENCS/IS
M 90.12 g/mol d 1.02 g/cm³ (20 °C) % (w/w) min. 99.5 b.p. 230 °C m.p. 20.4 °C	H302; H336 Warning		REACH; TSCA; IECSC; ENCS/IS
M 104.15 g/mol d 0.99 g/cm³ (20 °C) % (w/w) min. 97.0 b.p. 240 – 244 °C m.p. –16 °C			TSCA; IECSC; ENCS/IS
M 114.14 g/mol d 0.996 g/cm³ (50 °C) % (w/w) min. 95.0 b.p. 230 °C m.p. 20 – 70 °C	H301; H315; H318; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M 90.12 g/mol d 1.003 g/cm³ (20 °C) % (w/w) min. 97.0 b.p. 183 – 184 °C m.p. 20 °C			REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

2.2 Diols and Polyols

No.	Product [CAS Registry No.]	Formula
2.2.6	HDO® 1,6-Hexanediol flakes [629-11-8]	
2.2.7	HDO® 1,6-Hexanediol molten [629-11-8] Remark 1	
2.2.8	Hydroxypivalic acid neopentylglycolester flakes [1115-20-4]	
2.2.9	Hydroxypivalic acid neopentylglycolester molten [1115-20-4] Remark 1	
2.2.10	Neol® Neopentylglycol flakes [126-30-7]	

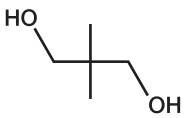
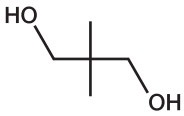
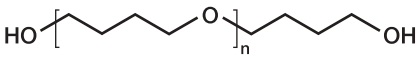
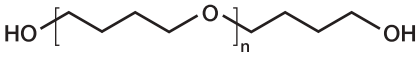
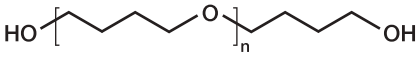
Remarks
1 Also available as flakes
2 Also available as flakes and 90% solution

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 118.18 g/mol d 0.96 g/cm³ (20 °C) % (w/w) min. 96.0 b.p. 253 – 260 °C m.p. 40 – 42 °C			REACH; TSCA; IECSC; ENCS/IS
M 118.18 g/mol d 0.96 g/cm³ (20 °C) % (w/w) min. 96.0 b.p. 253 – 260 °C m.p. 40 – 42 °C			REACH; TSCA; IECSC; ENCS/IS
M 204.27 g/mol d 1.02 g/cm³ (67 °C) % (w/w) min. 97.5 b.p. 283.2 °C m.p. 46 – 50 °C	H318 Danger		REACH; TSCA; IECSC; ENCS/IS
M 204.27 g/mol d 1.02 g/cm³ (67 °C) % (w/w) min. 97.5 b.p. 283.2 °C m.p. 46 – 50 °C	H318 Danger		REACH; TSCA; IECSC; ENCS/IS
M 104.15 g/mol d 1.06 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 210 °C m.p. 127.5 – 129.6 °C	H318 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

2.2 Diols and Polyols

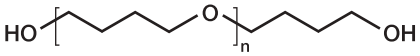
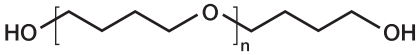
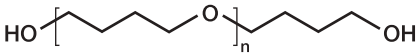
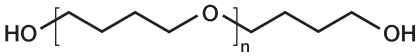
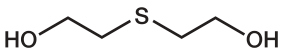
No.	Product [CAS Registry No.]	Formula
2.2.11	Neol® Neopentylglycol pure liquid [126-30-7] Remark 2	
2.2.12	Neol® Neopentylglycol sol. 90% fix calc. 100% [126-30-7]	
2.2.13	PolyTHF® 1000 [25190-06-1]	
2.2.14	PolyTHF® 1000 S [25190-06-1]	
2.2.15	PolyTHF® 1400 [25190-06-1]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	104.15 g/mol 0.886 g/cm³ (150 °C) min. 99.0 210 °C 125 – 130 °C	H318 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	104.15 g/mol 0.98 g/cm³ (40 °C) 89.5 – 90.5 118 – 210 °C < 35 °C	H318 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	1000 g/mol 0.982 g/cm³ (30 °C) min. 99.9 > 250 °C 26 °C			TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	1000 g/mol 0.982 g/cm³ (30 °C) min. 99.9 > 250 °C 26 °C			TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	1400 g/mol 0.9872 g/cm³ (20 °C) min. 99.9 > 250 °C 26 – 36 °C			TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

2.2 Diols and Polyols

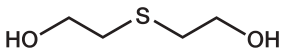
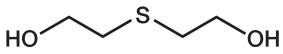
No.	Product [CAS Registry No.]	Formula
2.2.16	PolyTHF® 1800 [25190-06-1]	
2.2.17	PolyTHF® 2000 [25190-06-1]	
2.2.18	PolyTHF® 250 techn. [25190-06-1]	
2.2.19	PolyTHF® 650 S [25190-06-1]	
2.2.20	Thiodiglycol [111-48-8]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	1800 g/mol 0.975 g/cm³ (40 °C) min. 99.9 > 250 °C 27 °C			TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	2000 g/mol 0.973 g/cm³ (40 °C) min. 99.9 > 250 °C 36 °C			TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	250 g/mol 1.00 g/cm³ (20 °C) min. 99.9 > 250 °C –14 °C	H412		TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	650 g/mol 0.987 g/cm³ (25 °C) min. 99.9 > 250 °C 25 °C	H412		TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	122.19 g/mol 1.18 g/cm³ (20 °C) min. 95.0 284 °C –18 °C	H319 Warning		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

2.2 Diols and Polyols

No.	Product [CAS Registry No.]	Formula
2.2.21	Thiodiglycol HP [111-48-8]	
2.2.22	Thiodiglycol ultra [111-48-8]	

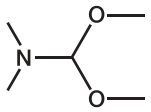
Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	122.19 g/mol 1.18 g/cm³ (20 °C) min. 98.5 284 °C –18 °C	H319 Warning		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	122.19 g/mol 1.18 g/cm³ (20 °C) min. 99.0 284 °C –18 °C	H319 Warning		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

3 Aldehydes, Acetals and Ketones

3.1 Acetals

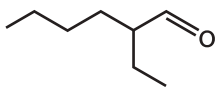
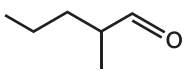
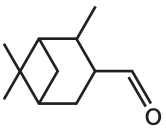
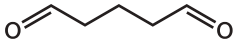
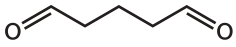
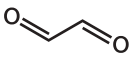
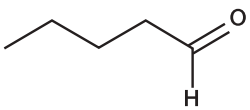
No.	Product [CAS Registry No.]	Formula
3.1.1	1,1-Dimethoxy-N,N-dimethyl methanamine [4637-24-5]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	119.16 g/mol 0.90 g/cm³ (20 °C) min. 96.0 104 – 108 °C –85 °C	H225; H317; H318; H332; H360D Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

3.2 Aldehydes

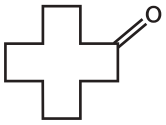
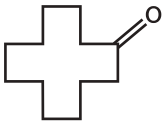
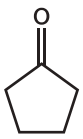
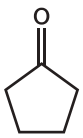
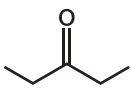
No.	Product [CAS Registry No.]	Formula
3.2.1	2-Ethylhexanal [123-05-7]	
3.2.2	2-Methylpentanal [123-15-9]	
3.2.3	3-Formylpinan raw [60113-43-1]	
3.2.4	Glutaraldehyde 24% sol. [111-30-8]	
3.2.5	Glutaraldehyde 50% solution low methanol [111-30-8]	
3.2.6	Glyoxal 40% [107-22-2]	
3.2.7	n-Valeraldehyde, Pentanal [110-62-3]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	128.21 g/mol 0.822 g/cm³ (20 °C) min. 97.0 162 °C –85 °C	H226; H315; H317; H319; H361d Warning		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	100.16 g/mol 0.81 g/cm³ (20 °C) min. 98.0 118 °C –100 °C	H225; H315; H319; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	not available 0.9292 g/cm³ (20 °C) min. 50.0 155 – 235 °C < –50 °C	H226; H302; H315; H317; H319; H411 Warning		TSCA; IECSC
M d % (w/w) b.p. m.p.	100.12 g/mol not available 23.5 – 24.5 101.5 °C –5 °C	H290; H302; H314; H317; H332; H334 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	100.12 g/mol 1.13 g/cm³ (20 °C) 50.0 – 51.0 101.5 °C –33 °C	H290; H301; H314; H317; H331; H334; H400 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	58.04 g/mol 1.27 g/cm³ (20 °C) 39.5 – 40.5 103.6 °C –50 – –15 °C	H315; H317; H319; H332; H335; H341 Warning		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	86.13 g/mol 0.808 g/cm³ (20 °C) mind. 98.5 104 °C –85 °C	H225; H319; H332; H317; H335; Warning		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

3.3 Ketones

No.	Product [CAS Registry No.]	Formula
3.3.1	Cyclododecanone [830-13-7]	
3.3.2	Cyclododecanone F [830-13-7]	
3.3.3	Cyclopentanone [120-92-3]	
3.3.4	Cyclopentanone P [120-92-3] Remark 1	
3.3.5	Diethylketone [96-22-0]	

Remarks
1 Also available in drums (180 kg)

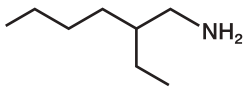
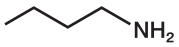
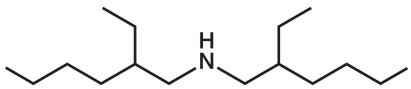
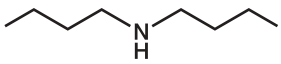
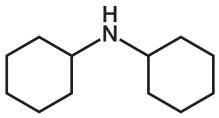
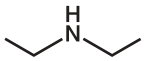
Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 182.31 g/mol d 0.9700 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 277 °C m.p. 61 °C	H411		REACH; TSCA; IECSC; ENCS/IS
M 182.31 g/mol d 0.9700 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 277 °C m.p. 61 °C	H411		REACH; TSCA; IECSC; ENCS/IS
M 84.12 g/mol d 0.945 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 131 °C m.p. –51 °C	H226; H315; H319 Warning		REACH; TSCA; IECSC; ENCS/IS
M 84.12 g/mol d 0.945 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 131 °C m.p. –51 °C	H226; H315; H319 Warning		REACH; TSCA; IECSC; ENCS/IS
M 86.13 g/mol d 0.815 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 101 – 102 °C m.p. –39 °C	H225; H319; H335; H336; EUH066 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

4 Amines

4.1 Aliphatic Monoamines

No.	Product [CAS Registry No.]	Formula
4.1.1	2-Ethylhexylamine [104-75-6]	
4.1.2	Butylamine [109-73-9]	
4.1.3	Di-(2-ethylhexyl)amine [106-20-7]	
4.1.4	Dibutylamine [111-92-2]	
4.1.5	Dicyclohexylamine [101-83-7]	
4.1.6	Diethylamine [109-89-7]	
4.1.7	Dimethylamine anhydrous [124-40-3] Remark 1	

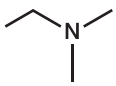
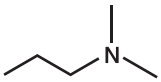
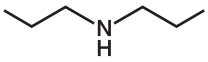
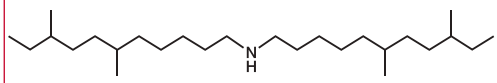
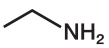
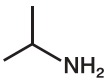
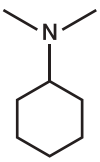
Remarks
1 Also available as aqueous solution in different concentrations

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 129.25 g/mol d 0.78 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 169.8 °C m.p. < –70 °C	H226; H302; H311; H314; H330 Danger		REACH; TSCA; IECSC; ENCS/IS
M 73.14 g/mol d 0.736 g/cm³ (20 °C) % (w/w) min. 99.5 b.p. 77 °C m.p. –47 °C	H225; H290; H302; H311; H314; H331; H335 Danger		TSCA; IECSC; ENCS/IS
M 241.46 g/mol d 0.803 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 281.1 °C m.p. < –70 °C	H302; H311; H314; H331; H411 Danger		TSCA; IECSC; ENCS/IS
M 129.25 g/mol d 0.7577 g/cm³ (22.9 °C) % (w/w) min. 99.5 b.p. 160 °C m.p. –62 °C	H226; H302; H311; H314; H330 Danger		REACH; TSCA; IECSC; ENCS/IS
M 181.32 g/mol d 0.912 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 256 °C m.p. –0.1 °C	H301; H314; H411 Danger		REACH; TSCA; IECSC; ENCS/IS
M 73.14 g/mol d 0.71 g/cm³ (20 °C) % (w/w) min. 99.5 b.p. 53.5 – 56.1 °C m.p. –50 °C	H225; H302; H311; H314; H332; H335 Danger		REACH; TSCA; IECSC; ENCS/IS
M 45.08 g/mol d 0.67 g/cm³ (7 °C) % (w/w) min. 99.5 b.p. 7 °C m.p. –92.2 °C	H220; H280; H315; H318; H332; H335; H412 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

4.1 Aliphatic Monoamines

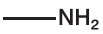
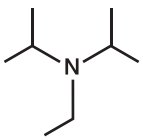
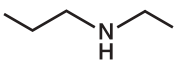
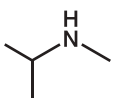
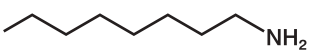
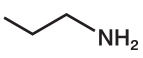
No.	Product [CAS Registry No.]	Formula
4.1.8	Dimethylethylamine [598-56-1]	
4.1.9	Dimethylpropylamine [926-63-6]	
4.1.10	Dipropylamine [142-84-7]	
4.1.11	Ditridecylamine mixture of isomers [101012-97-9]	
4.1.12	Ethylamine solution 70% [75-04-7]	
4.1.13	Isopropylamine anhydrous [75-31-0]	
4.1.14	Lupragen® N 100 – N,N-Dimethylcyclohexylamine [98-94-2]	

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 73.14 g/mol d 0.68 g/cm³ (20 °C) % (w/w) min. 99.5 b.p. 36.5 °C m.p. –140 °C	H225; H302; H314; H331 Danger		REACH; TSCA; IECSC; ENCS/IS
M 87.16 g/mol d 0.7081 g/cm³ (20 °C) % (w/w) min. 98.0 b.p. 65.75 °C m.p. < –20 °C	H225; H302; H315; H318; H331; H412 Danger		REACH; TSCA; IECSC
M 101.19 g/mol d 0.738 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 109.3 °C m.p. –40 °C	H225; H302; H311; H314; H331; H335 Danger		REACH; TSCA; IECSC; ENCS/IS
M not available d 0.836 g/cm³ (20 °C) % (w/w) min. 90.0 b.p. 220 – 240 °C (10 hPa) m.p. < –45 °C	H314; H412 Danger		REACH; ENCS/IS
M 45.08 g/mol d 0.8 g/cm³ (20 °C) % (w/w) min. 99.8 b.p. 39 °C m.p. < –70 °C	H225; H302; H311; H314; H335 Danger		REACH; TSCA; IECSC; ENCS/IS
M 59.11 g/mol d 0.6871 g/cm³ (20 °C) % (w/w) min. 99.5 b.p. 32 °C m.p. < –90 °C	H224; H315; H319; H335 Danger		TSCA; IECSC; ENCS/IS
M 127.23 g/mol d 0.85 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 162.3 °C m.p. < –77 °C	H226; H301; H311; H314; H331 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

4.1 Aliphatic Monoamines

No.	Product [CAS Registry No.]	Formula
4.1.15	Monomethylamine anhydrous [74-89-5] Remark 1	
4.1.16	N,N-Dimethylisopropylamine [996-35-0]	
4.1.17	N-Ethyldiisopropylamine [7087-68-5]	
4.1.18	N-Ethyl-N-propylamine azeotrope [20193-20-8]	
4.1.19	N-Methyl-N-isopropylamine [4747-21-1]	
4.1.20	N-Octylamine [111-86-4]	
4.1.21	Propylamine [107-10-8]	

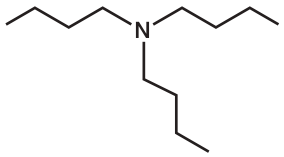
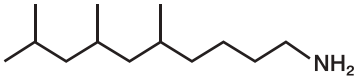
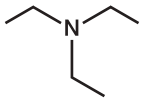
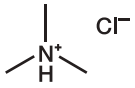
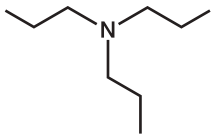
Remarks
1 Also available as aqueous solution

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 31.06 g/mol d 1.384 kg/m³ (0 °C) % (w/w) min. 99.5 b.p. –6.5 °C m.p. –92.5 °C	H220; H280; H315; H318; H331; H335 Danger		REACH; TSCA; IECSC; ENCS/IS
M 87.16 g/mol d 0.72 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 66.25 °C m.p. < –70 °C	H225; H302; H314; H331; H411 Danger		REACH; TSCA; IECSC
M 129.25 g/mol d 0.7561 g/cm³ (20 °C) % (w/w) min. 99.5 b.p. 127 °C m.p. –127 °C	H225; H302; H314; H402; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M 87.16 g/mol d 0.776 g/cm³ (22.7 °C) % (w/w) min. 99.0 b.p. 83 °C m.p. –75 °C	H225; H302; H314 Danger		REACH; TSCA; IECSC
M 73.14 g/mol d 0.704 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 50 – 53 °C m.p. < –40 °C	H225; H301; H314; H331 Danger		REACH
M 129.25 g/mol d 0.779 g/cm³ (25 °C) % (w/w) min. 99.0 b.p. 178.49 °C m.p. –1 °C	H226; H302; H312; H314; H332; H400 Danger		REACH; TSCA; IECSC; ENCS/IS
M 59.11 g/mol d 0.72 g/cm³ (20 °C) % (w/w) min. 99.5 b.p. 47.2 °C m.p. –83 °C	H225; H290; H302; H311; H314; H331 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

4.1 Aliphatic Monoamines

No.	Product [CAS Registry No.]	Formula
4.1.22	tert.-Butylamine [75-64-9]	
4.1.23	Tributylamine [102-82-9] Remark 1	
4.1.24	Tridecylamine mixture of isomers [86089-17-0]	
4.1.25	Triethylamine anhydrous [121-44-8]	
4.1.26	Trimethylamine anhydrous [75-50-3]	
4.1.27	Trimethylaminehydrochloride sol. 70% [593-81-7]	
4.1.28	Tripropylamine [102-69-2] Remark 1	

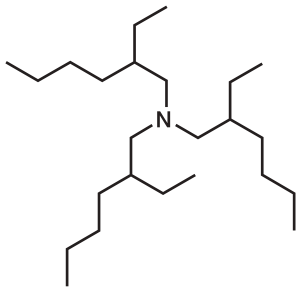
Remarks
1 Also available as high purity special grade

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 73.14 g/mol d 0.7008 g/cm³ (15 °C) % (w/w) min. 99.5 b.p. 45.2 °C m.p. –68 – –67.5 °C	H225; H302; H314; H331; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M 185.35 g/mol d 0.78 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 215 °C m.p. < –70 °C	H302; H310; H315; H330 Danger		REACH; TSCA; IECSC; ENCS/IS
M not available d 0.818 g/cm³ (20 °C) % (w/w) min. 97.0 b.p. 248 – 255 °C m.p. < –70 °C	H302; H314; H400; H410 Danger		REACH; IECSC; ENCS/IS
M 101.19 g/mol d 0.7275 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 89.3 °C m.p. –114.7 °C	H225; H302; H311; H314; H332; H335 Danger		REACH; TSCA; IECSC; ENCS/IS
M 59.11 g/mol d 0.258 g/l (not available) % (w/w) min. 99.5 b.p. 2.87 °C m.p. –117.1 °C	H220; H280; H315; H318; H332; H335 Danger		TSCA; IECSC; ENCS/IS
M 95.57 g/mol d 1.03 g/cm³ (20 °C) % (w/w) min. 70.0 b.p. 130 °C m.p. 1 – 8 °C	H319 Warning		REACH; TSCA; IECSC; ENCS/IS
M 143.27 g/mol d 0.76 g/cm³ (20 °C) % (w/w) min. 98.0 b.p. 156.5 °C m.p. –93.5 °C	H226; H302; H311; H314; H330; H412 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

4.1 Aliphatic Monoamines

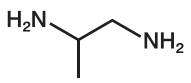
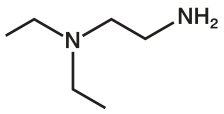
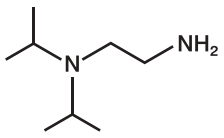
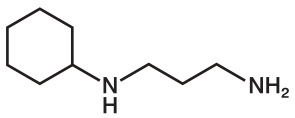
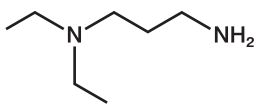
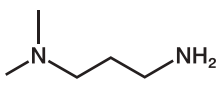
No.	Product [CAS Registry No.]	Formula
4.1.29	Tris-(2-ethylhexyl)amine [1860-26-0]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	353.68 g/mol 0.8174 g/cm³ (20 °C) min. 99.0 204 – 211 °C (30 hPa) –48.6 °C	H413		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

4.2 Aliphatic Diamines

No.	Product [CAS Registry No.]	Formula
4.2.1	1,2-Propylenediamine techn. [78-90-0] Remark 1	
4.2.2	1,3-Diaminopropane [109-76-2]	
4.2.3	2-(Diethylamino)ethylamine [100-36-7]	
4.2.4	2-(Diisopropylamino)ethylamine [121-05-1]	
4.2.5	3-(Cyclohexylamino)propylamine [3312-60-5] Remark 2	
4.2.6	3-(Diethylamino)propylamine [104-78-9]	
4.2.7	3-(Dimethylamino)propylamine [109-55-7]	

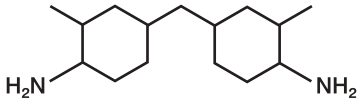
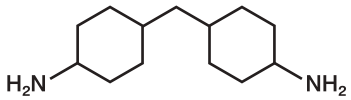
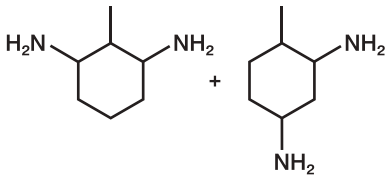
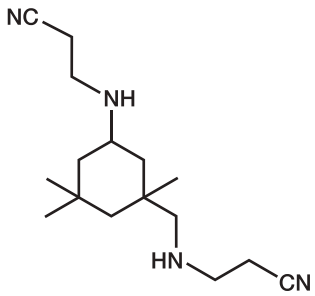
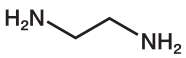
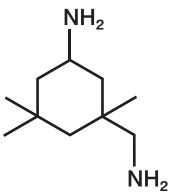
Remarks
1 Also available as solution on request
2 Marketed as Baxxodur® EC 252 for epoxy applications

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 74.13 g/mol d 0.86 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 119 – 121 °C m.p. –37 °C	H226; H302; H311; H314; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M 74.1 g/mol d 0.89 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 140 °C m.p. –12 °C	H226; H290; H302; H310; H314; H317 Danger		REACH; TSCA; IECSC; ENCS/IS
M 116.21 g/mol d 0.819 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 144 °C m.p. < –70 °C	H226; H290; H302; H311; H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M 144.26 g/mol d 0.825 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 179 – 180 °C m.p. –30 °C	H226; H302; H314 Danger		REACH; TSCA; IECSC
M 156.27 g/mol d not available % (w/w) min. 99.0 b.p. 236 °C m.p. –16 °C	H302; H314; H317; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M 130.23 g/mol d 0.826 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 170 °C m.p. < –60 °C	H226; H302; H311; H314; H317 Danger		REACH; TSCA; IECSC; ENCS/IS
M 102.18 g/mol d 0.818 g/cm³ (20 °C) % (w/w) min. 99.8 b.p. 134 °C m.p. < –50 °C	H226; H302; H311; H314; H317; H331 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

4.2 Aliphatic Diamines

No.	Product [CAS Registry No.]	Formula
4.2.8	3,3'-Dimethyl-4,4'-diamino-dicyclohexylmethane [6864-37-5]	
4.2.9	4,4'-Diaminodicyclohexylmethane [1761-71-3]	
4.2.10	Baxxodur® ECX 210	
4.2.11	Baxxodur® PC 136 [93940-97-7]	
4.2.12	Ethylenediamine [107-15-3]	
4.2.13	Isophorone diamine [2855-13-2] Remark 1	

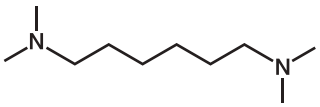
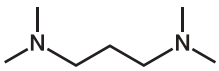
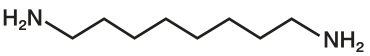
Remarks
1 Marketed as Baxxodur® EC 201 for epoxy applications

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 238.42 g/mol d 0.9456 g/cm³ (20 °C) % (w/w) min. 99.6 b.p. 347 °C m.p. –7.1 °C	H302; H311; H314; H330; H411 Danger		REACH; TSCA; IECSC; ENCS/IS
M 210.36 g/mol d 0.93 g/cm³ (60 °C) % (w/w) min. 99.0 b.p. 329.76 °C m.p. 33.5 – 44 °C	H302; H314; H411 Danger		REACH; TSCA; IECSC; ENCS/IS
M 128.22 g/mol d 0.9395 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 210 °C m.p. –92 °C	H302; H314; H317; H412 Danger		REACH; TSCA; IECSC
M 276.4 g/mol d 0.9878 g/cm³ (20 °C) % (w/w) min. 95.0 b.p. > 200 °C m.p. < –20 °C	H302; H317; H412 Warning		REACH; TSCA; IECSC
M 60.10 g/mol d 897 g/cm³ (20 °C) % (w/w) min. 99.5 b.p. 117.1 °C m.p. 11.1 °C	H226; H302; H311; H314; H317; H334 Danger		REACH; TSCA; IECSC; ENCS/IS
M 170.30 g/mol d 0.92 g/cm³ (20 °C) % (w/w) min. 99.7 b.p. 247 °C m.p. 10 °C	H302; H312; H314; H317; H412 Danger		TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

4.2 Aliphatic Diamines

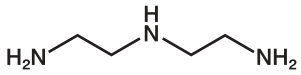
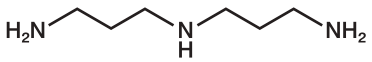
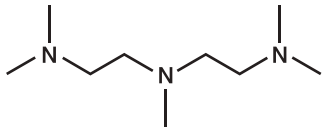
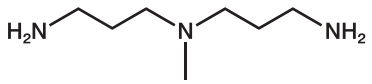
No.	Product [CAS Registry No.]	Formula
4.2.14	Lupragen® N 500 – Tetramethyl-1,6-hexanediamine [111-18-2]	
4.2.15	N,N,N',N'-Tetramethyl-1,3-propane diamine [110-95-2]	
4.2.16	Neopentanediamine (2,2-Dimethyl propane-1,3-diamine) [7328-91-8]	
4.2.17	Octamethylenediamine [373-44-4]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	172.31 g/mol 0.803 g/cm³ (20 °C) min. 99.0 212 – 216 °C –46 °C	H302; H314; H330; H411 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	130.23 g/mol 0.78 g/cm³ (20 °C) min. 99.0 144 – 148 °C < –70 °C	H226; H302; H312; H314; H331; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	102.18 g/mol 0.85 g/cm³ (40 °C) min. 97.5 153 °C 28 – 30 °C	H226; H302; H312; H314; H317 Danger		REACH; TSCA; IECSC
M d % (w/w) b.p. m.p.	144.26 g/mol 0.827 g/cm³ (60 °C) min. 99.0 237 – 238 °C 51 °C	H302; H314; H317 Danger		REACH; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

4.3 Aliphatic Oligoamines

No.	Product [CAS Registry No.]	Formula
4.3.1	AMIX 1000 [68910-05-4] Remark 1	
4.3.2	AMIX A [92731-41-4] Remark 1	
4.3.3	Diethylenetriamine [111-40-0]	
4.3.4	Dipropylene triamine [56-18-8] Remark 2	
4.3.5	Lupragen® N 301 – Pentamethyl-dietylenetriamine [3030-47-5]	
4.3.6	N,N-Bis-(3-aminopropyl)methylamine [105-83-9]	
4.3.7	N3-Amine 3-(2-Aminoethylamino) propylamine [13531-52-7]	

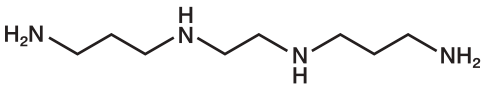
Remarks
1 Ethyleneamines mixture
2 Marketed as Baxxodur® EC 110 for epoxy applications

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M not available d 1.034 g/cm³ (20 °C) % (w/w) not available b.p. 236 – 310 °C m.p. –30 °C	H314; H317; H331; H335; H360FD; H410 Danger		REACH; TSCA; IECSC
M not available d 0.980 g/cm³ (20 °C) % (w/w) not available b.p. > 200 °C m.p. < –20 °C	H302; H311; H314; H317; H360FD; H412 Danger		REACH; TSCA; IECSC
M 103.17 g/mol d 0.9586 g/cm³ (20 °C) % (w/w) min. 98.5 b.p. 206 °C m.p. –39 °C	H302; H311; H314; H317; H330; H335 Danger		REACH; TSCA; IECSC; ENCS/IS
M 131.22 g/mol d 0.928 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 239 °C m.p. –16 °C	H290; H302; H311; H314; H317; H330; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M 173.30 g/mol d 0.830 g/cm³ (20 °C) % (w/w) min. 98.0 b.p. 199 °C m.p. < –20 °C	H302; H311; H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M 145.25 g/mol d 0.904 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 235 °C m.p. < –35 °C	H302; H310; H314; H330 Danger		REACH; TSCA; IECSC; ENCS/IS
M 117.19 g/mol d 0.93 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 221 °C m.p. 10 °C	H302; H310; H314; H412 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

4.3 Aliphatic Oligoamines

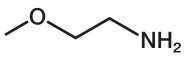
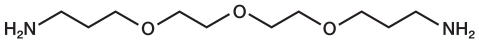
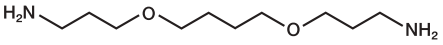
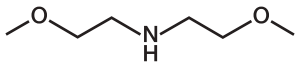
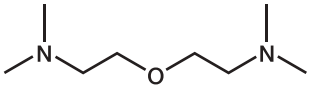
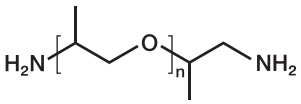
No.	Product [CAS Registry No.]	Formula
4.3.8	N4-Amine N,N'-Bis-(3-Aminopropyl) ethylenediamine [10563-26-5]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	174.29 g/mol 0.95 g/cm³ (20 °C) min. 93.0 > 169 °C –1.5 °C	H302; H310; H314; H317; H412 Danger		REACH; TSCA; IECSC

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

4.4 Etheramines

No.	Product [CAS Registry No.]	Formula
4.4.1	2-Methoxyethylamine [109-85-3]	
4.4.2	3-Methoxypropylamine [5332-73-0]	
4.4.3	4,7,10-Trioxatridecane-1,13-diamine [4246-51-9] Remark 1	
4.4.4	4,9-Dioxadodecane-1,12-diamine [7300-34-7] Remark 2	
4.4.5	Di-(2-methoxyethyl)amine [111-95-5]	
4.4.6	Lupragen® N 205 – Bis(2-dimethyl-aminoethyl)ether [3033-62-3]	
4.4.7	Polyetheramine D 2000 [9046-10-0] Remark 3	

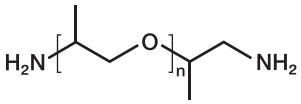
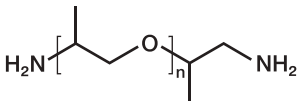
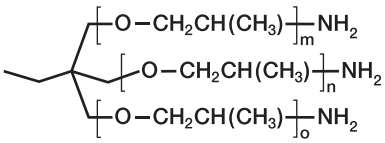
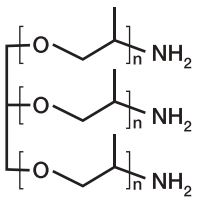
Remarks
1 Marketed as Baxxodur® EC 130 for epoxy applications
2 Marketed as Baxxodur® EC 280 for epoxy applications
3 Marketed as Baxxodur® EC 303 for epoxy applications

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 75.11 g/mol d 0.871 g/cm³ (20 °C) % (w/w) min. 98.5 b.p. 90.4 °C m.p. < –70 °C	H225; H302; H312; H314 Danger		REACH; TSCA; IECSC
M 89.14 g/mol d 0.8761 g/cm³ (15 °C) % (w/w) min. 99.0 b.p. 116 °C m.p. < –70 °C	H226; H302; H314; H317; H412 Danger		TSCA; IECSC; ENCS/IS
M 220.31 g/mol d 1.01 g/cm³ (20 °C) % (w/w) min. 98.0 b.p. 146 – 148 °C (1 hPa) m.p. –32 °C	H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M 204.31 g/mol d 0.956 g/cm³ (20 °C) % (w/w) min. 98.5 b.p. 298 °C m.p. 4.5 °C	H314; H332 Danger		REACH; TSCA; IECSC; ENCS/IS
M 133.19 g/mol d 0.911 g/cm³ (20 °C) % (w/w) min. 98.5 b.p. 169 – 173 °C m.p. < –60 °C	H226; H312; H314 Danger		REACH; TSCA; IECSC
M 160.26 g/mol d 0.853 g/cm³ (20 °C) % (w/w) min. 97.0 b.p. 188 °C m.p. < –80 °C	H302; H311; H314; H332; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M 2.000 g/mol d 0.9943 g/cm³ (20 °C) % (w/w) min. 97.0 b.p. > 250 °C m.p. –29 °C	H302; H314; H412 Danger		TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

4.4 Etheramines

No.	Product [CAS Registry No.]	Formula
4.4.8	Polyetheramine D 230 [9046-10-0] Remark 1	
4.4.9	Polyetheramine D 400 [9046-10-0] Remark 2	
4.4.10	Polyetheramine T 403 [39423-51-3] Remark 3	
4.4.11	Polyetheramine T 5000 [64852-22-8] Remark 4	

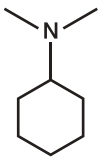
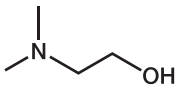
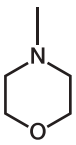
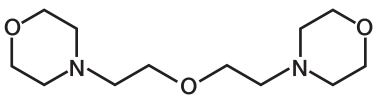
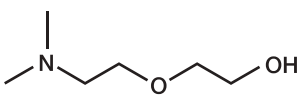
Remarks
1 Marketed as Baxxodur® EC 301 for epoxy applications
2 Marketed as Baxxodur® EC 302 for epoxy applications
3 Marketed as Baxxodur® EC 310 for epoxy applications (available in all regions except Europe)
4 Marketed as Baxxodur® EC 311 for epoxy applications

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	not available 0.9476 g/cm³ (20 °C) min. 97.0 > 200 °C –88 °C	H302; H312; H314; H412 Danger		TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	not available 0.97 g/cm³ (20 °C) min. 97.0 > 200 °C < –40 °C	H302; H312; H314; H412 Danger		TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	not available 0.987 g/cm³ (20 °C) not available > 250 °C < –20 °C	H301; H315; H318; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	not available 0.998 g/cm³ (20 °C) min. 97.0 > 200 °C –50 °C	H315; H318 Danger		TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

4.5 Polyurethane Catalysts (Lupragens)

No.	Product [CAS Registry No.]	Formula
4.5.1	Lupragen® N 100 – N,N-Dimethylcyclohexylamine [98-94-2]	
4.5.2	Lupragen® N 101 – Dimethylethanolamine [108-01-0]	
4.5.3	Lupragen® N 105 – N-Methylmorpholine [109-02-4] Remark 1	
4.5.4	Lupragen® N 106 – 2,2'-Dimorpholinodiethylether [6425-39-4]	
4.5.5	Lupragen® N 107 – Dimethylaminoethoxyethanol [1704-62-7]	
4.5.6	Lupragen® N 201 – Triethylenediamine in dipropyleneglycol [280-57-9] Remark 2	
4.5.7	Lupragen® N 203 – Triethylendiamine in monoethyleneglycol [280-57-9] Remark 2	

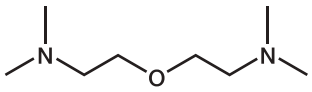
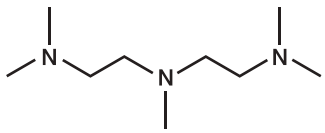
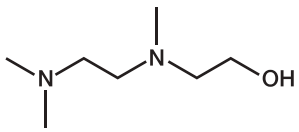
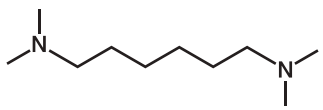
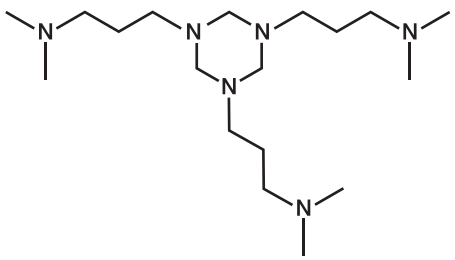
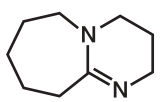
Remarks
1 Methylmorpholine P is available for pharma applications
2 Exclusively marketed by Evonik Industries AG

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 127.23 g/mol d 0.85 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 162.3 °C m.p. < –77 °C	H226; H301; H311; H314; H331 Danger		REACH; TSCA; IECSC; ENCS/IS
M 89.14 g/mol d 0.887 g/cm³ (20 °C) % (w/w) min. 99.8 b.p. 134.1 °C m.p. –59 °C	H226; H302; H312; H314; H331; H335 Danger		TSCA; IECSC; ENCS/IS
M 101.15 g/mol d 0.82 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 115 °C m.p. –65 °C	H225; H312; H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M 244.33 g/mol d 1.0603 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 309 °C m.p. –28 °C	H315; H319 Warning		REACH; TSCA; IECSC; ENCS/IS
M 133.19 g/mol d 0.9549 g/cm³ (20 °C) % (w/w) min. 98.0 b.p. 203.5 °C m.p. < –70 °C	H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M not available d 1.025 g/cm³ (20 °C) % (w/w) 33.1 – 33.5 b.p. not available m.p. –39 °C	H302; H315; H318 Danger		TSCA; IECSC; ENCS/IS
M not available d 1.09 g/cm³ (25 °C) % (w/w) 33.1 – 33.5 b.p. 196 °C m.p. –67 °C	H302; H315; H318; H335 Danger		TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

4.5 Polyurethane Catalysts (Lupragens)

No.	Product [CAS Registry No.]	Formula
4.5.8	Lupragen® N 205 – Bis(2-dimethylaminoethyl)ether [3033-62-3]	
4.5.9	Lupragen® N 301 – Pentamethyldietylenetriamine [3030-47-5]	
4.5.10	Lupragen® N 400 – Trimethylaminoethylethanolamine [2212-32-0]	
4.5.11	Lupragen® N 500 – Tetramethyl-1,6-hexanediamine [111-18-2]	
4.5.12	Lupragen® N 600 – S-Triazine [15875-13-5]	
4.5.13	Lupragen® N 700 – 1,8-Diazabicyclo-5,4,0-undecene-7 [6674-22-2] Remark 1	

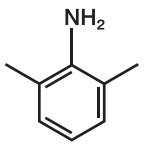
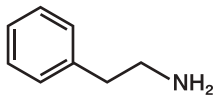
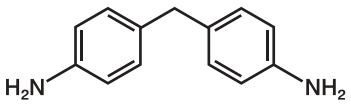
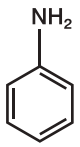
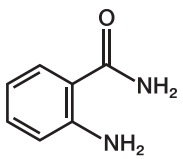
Remarks
1 Diazabicycloundecene P is available for pharma applications

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 160.26 g/mol d 0.853 g/cm³ (20 °C) % (w/w) min. 97.0 b.p. 188 °C m.p. < –80 °C	H302; H311; H314; H332; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M 173.30 g/mol d 0.830 g/cm³ (20 °C) % (w/w) min. 98.0 b.p. 199 °C m.p. < –20 °C	H302; H311; H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M 146.23 g/mol d 0.914 g/cm³ (15 °C) % (w/w) min. 98.5 b.p. 210 °C m.p. < –70 °C	H315; H318 Danger		REACH; TSCA; IECSC; ENCS/IS
M 172.31 g/mol d 0.803 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 212 – 216 °C m.p. –46 °C	H302; H314; H330; H411 Danger		REACH; TSCA; IECSC; ENCS/IS
M 342.57 g/mol d 0.91 g/cm³ (25 °C) % (w/w) not available b.p. 225 °C m.p. –59 °C	H312; H315; H318 Danger		REACH; TSCA; IECSC; ENCS/IS
M 152.24 g/mol d 1.019 g/cm³ (20 °C) % (w/w) min. 98.0 b.p. 261.86 °C m.p. –70 °C	H302; H314; H412 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

4.6 Aromatic Amines and Nitro Compounds

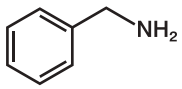
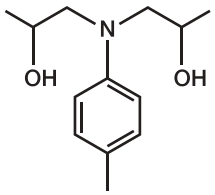
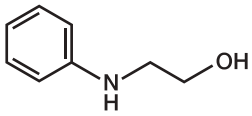
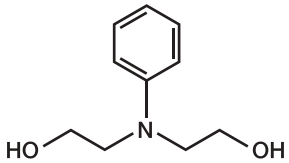
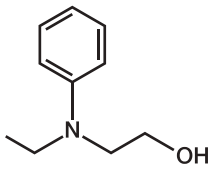
No.	Product [CAS Registry No.]	Formula
4.6.1	2,6-Xylidine [87-62-7]	
4.6.2	2-Phenylethylamine [64-04-0]	
4.6.3	4,4'-Diaminodiphenylmethane molten plus [101-77-9]	
4.6.4	Aniline [62-53-3]	
4.6.5	Anthranilic acid amide dry [88-68-6]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	121.18 g/mol 0.96 g/cm³ (20 °C) min. 99.5 216 °C 11.2 °C	H302; H312; H315; H319; H332; H335; H351; H411 Warning		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	121.18 g/mol 0.985 g/cm³ (25 °C) min. 99.0 200 – 202 °C < –60 °C	H301; H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	198.27 g/mol 1.08 g/cm³ (96 °C) min. 96.5 398 °C 90 °C	H317; H341; H350; H370; H373; H410 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	93.13 g/mol 1.02 g/cm³ (20 °C) min. 99.9 184.1 °C –6 °C	H301; H311; H317; H318; H331; H341; H351; H372; H400 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	136.15 g/mol not available min. 99.0 not available 107 – 111 °C	H318 Danger		REACH; TSCA; IECSC

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

4.6 Aromatic Amines and Nitro Compounds

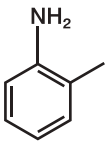
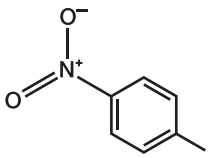
No.	Product [CAS Registry No.]	Formula
4.6.6	Benzylamine [100-46-9]	
4.6.7	Diisopropanol-p-toluidine [38668-48-3]	
4.6.8	N-(2-Hydroxyethyl)aniline [122-98-5]	
4.6.9	N,N-Di-(2-hydroxyethyl)aniline [120-07-0]	
4.6.10	N-Ethyl-N-(2-hydroxyethyl)aniline [92-50-2]	

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 107.16 g/mol d 0.983 g/cm³ (19 °C) % (w/w) min. 99.0 b.p. 182 – 185 °C m.p. –42.8 °C	H302; H312; H314; H411 Danger		REACH; TSCA; IECSC; ENCS/IS
M 223.32 g/mol d 0.99 g/cm³ (80 °C) % (w/w) min. 96.0 b.p. > 300 °C m.p. 65 – 72 °C	H300; H318; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M 137.18 g/mol d 1.0954 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 278 °C m.p. –32 °C	H301; H311; H318; H373 Danger		REACH; TSCA; IECSC; ENCS/IS
M 181.23 g/mol d 1.1 g/cm³ (60 °C) % (w/w) min. 95.0 b.p. 380 °C m.p. 57.8 °C	H317; H318; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M not available d 1.03 g/cm³ (40 °C) % (w/w) min. 98.0 b.p. 270 °C m.p. 15 °C	H302; H317; H318 Danger		TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

4.6 Aromatic Amines and Nitro Compounds

No.	Product [CAS Registry No.]	Formula
4.6.11	o-Toluidine pure [95-53-4]	
4.6.12	p-Nitrotoluene pure [99-99-0]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	107.16 g/mol 1.00 g/cm³ (20 °C) min. 99.5 200 – 201 °C –23 °C	H301; H315; H317; H319; H331; H350; H400 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	137.14 g/mol 1.29 g/cm³ (20 °C) min. 99.5 238 °C 51.3 °C	H301; H311; H331; H373; H411 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

4.7 AMIX

No.	Product [CAS Registry No.]	Formula
4.7.1	AMIX 1000 [68910-05-4] Remark 1	
4.7.2	AMIX A [92731-41-4] Remark 1	
4.7.3	AMIX M [68909-77-3] Remark 2	
4.7.4	AMIX TE [68953-70-8] Remark 3	
4.7.5	AMIX TI solution [122-20-3] Remark 4	

Remarks
1 Ethyleneamines mixture
2 High boiling morpholine derivatives
3 Min. 75% Triethanolamine (GC)
4 Solution of Triisopropanolamine technical grade, Diisopropanolamine and water

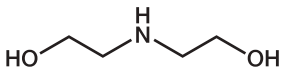
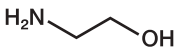
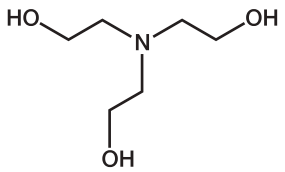
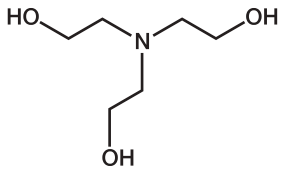
Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	not available 1.034 g/cm³ (20 °C) not available 236 – 310 °C –30 °C	H314; H317; H331; H335; H360FD; H410 Danger		REACH; TSCA; IECSC
M d % (w/w) b.p. m.p.	not available 0.980 g/cm³ (20 °C) not available > 200 °C < –20 °C	H302; H311; H314; H317; H360FD; H412 Danger		REACH; TSCA; IECSC
M d % (w/w) b.p. m.p.	not available 1.0993 g/cm³ (20 °C) not available 266 – 330 °C –65 °C	H315; H317; H318 Danger		REACH; TSCA; IECSC
M d % (w/w) b.p. m.p.	not available 1.161 g/cm³ (20 °C) min. 75.0 > 360 °C < 0 °C			REACH; TSCA; IECSC
M d % (w/w) b.p. m.p.	191.27 g/mol 1.0318 g/cm³ (20 °C) not available 100 – 370 °C 0 °C	H319; H412 Warning		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

5 Amino Alcohols

5.1 Ethanolamines

No.	Product [CAS Registry No.]	Formula
5.1.1	AMIX TE [68953-70-8] Remark 1	
5.1.2	Diethanolamine pure [111-42-2] Remark 2	
5.1.3	Ethanolamine mixtures (anhydrous) Remark 3	
5.1.4	Monoethanolamine pure [141-43-5] Remark 4	
5.1.5	Triethanolamine pure [102-71-6] Remark 5	
5.1.6	Triethanolamine S [102-71-6]	

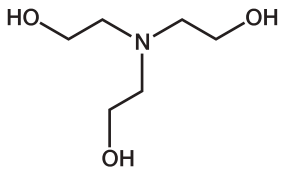
Remarks
1 Min. 75% Triethanolamine (GC)
2 Also available as aqueous solution in different concentrations (lower freezing points for easier handling)
3 Composition on request
4 Also available as electronic grade, as personal care grade and as aqueous solution in different concentrations (lower freezing points for easier handling)
5 Also available as personal care grade and as aqueous solution in different concentrations (lower freezing points for easier handling)

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M not available d 1.161 g/cm³ (20 °C) % (w/w) min. 75.0 b.p. > 360 °C m.p. < 0 °C			REACH; TSCA; IECSC
M 105.14 g/mol d 1.0953 g/cm³ (20 °C) % (w/w) min. 99.3 b.p. 269.9 °C m.p. 27.4 °C	H302; H315; H318; H373 Danger		REACH; TSCA; IECSC; ENCS/IS
M not available d 1.1 g/cm³ (20 °C) % (w/w) not available b.p. > 268 °C m.p. < 20 °C	H302; H315; H318; H373 Danger		TSCA; IECSC; ENCS/IS
M 61.08 g/mol d 1.0157 g/cm³ (20 °C) % (w/w) min. 99.7 b.p. 170.3 °C m.p. 10.5 °C	H302; H312; H314; H332; H335 Danger		REACH; TSCA; IECSC; ENCS/IS
M 149.19 g/mol d 1.125 g/cm³ (20 °C) % (w/w) min. 99.3 b.p. 336.1 °C m.p. 18 – 23 °C			REACH; TSCA; IECSC; ENCS/IS
M 149.00 g/mol d 1.13 g/cm³ (20 °C) % (w/w) 82.0 – 88.0 b.p. 175 – 185 °C (2 hPa) m.p. 8 °C	H318; H373 Danger		TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

5.1 Ethanolamines

No.	Product [CAS Registry No.]	Formula
5.1.7	Triethanolamine T 85 [102-71-6] Remark 1	

Remarks

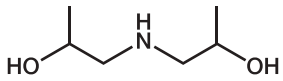
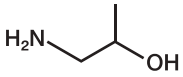
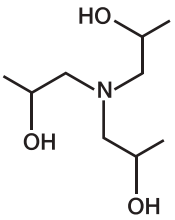
1 Triethanolamine mixture with diethanolamine; also available as aqueous solution in different concentrations (lower freezing points for easier handling)

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	149.19 g/mol 1.13 g/cm³ (20 °C) min. 85.0 > 270 °C 13 °C	H318; H373 Danger		TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

5.2 Isopropanolamines

No.	Product [CAS Registry No.]	Formula
5.2.1	AMIX TI solution [122-20-3] Remark 1	
5.2.2	Diisopropanolamine [110-97-4] Remark 2	
5.2.3	Isopropanolamine [78-96-6]	
5.2.4	Triisopropanolamine [122-20-3] Remark 3	

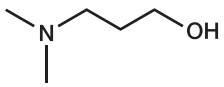
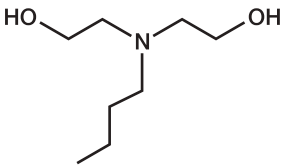
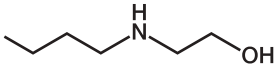
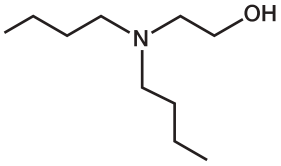
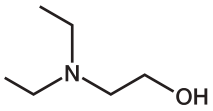
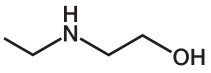
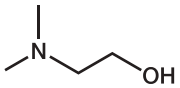
Remarks
1 Solution of Triisopropanolamine technical grade, Diisopropanolamine and water
2 Also available in different purity grades and as aqueous solution in different concentrations on request
3 Also available as technical grade and 85% aqueous solution

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 191.27 g/mol d 1.0318 g/cm³ (20 °C) % (w/w) not available b.p. 100 – 370 °C m.p. 0 °C	H319; H412 Warning		REACH; TSCA; IECSC; ENCS/IS
M 133.19 g/mol d 0.9849 g/cm³ (50 °C) % (w/w) min. 99.0 b.p. 248.8 – 254.5 °C m.p. 44.5 – 45.5 °C	H319 Warning		REACH; TSCA; IECSC; ENCS/IS
M 75.11 g/mol d 0.962 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 158 – 159 °C m.p. 2 °C	H312; H314 Danger		TSCA; IECSC; ENCS/IS
M 191.27 g/mol d 1.0 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 301.1 °C m.p. 45 °C	H319; H412 Warning		TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

5.3 Alkylamino Alcohols

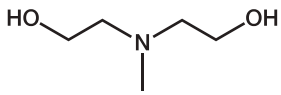
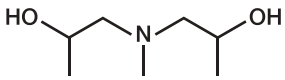
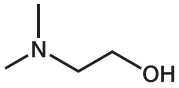
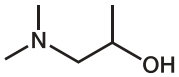
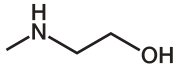
No.	Product [CAS Registry No.]	Formula
5.3.1	3-Dimethylaminopropane-1-ol [3179-63-3]	
5.3.2	Butyldiethanolamine [102-79-4]	
5.3.3	Butylethanolamine [111-75-1]	
5.3.4	Dibutylethanolamine [102-81-8]	
5.3.5	Diethylethanolamine [100-37-8]	
5.3.6	Ethylethanolamine [110-73-6]	
5.3.7	Lupragen® N 101 – Dimethylethanolamine [108-01-0]	

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 103.16 g/mol d 0.886 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 159 °C m.p. –35 °C	H226; H302; H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M 161.24 g/mol d 0.9689 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 264 °C m.p. –45 °C	H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M 117.19 g/mol d 0.89 g/cm³ (20 °C) % (w/w) min. 98.0 b.p. 199 °C m.p. –2.1 °C	H302; H315; H318 Danger		REACH; TSCA; IECSC; ENCS/IS
M 173.30 g/mol d 0.86 g/cm³ (20 °C) % (w/w) min. 98.0 b.p. 227 °C m.p. < –70 °C	H302; H314; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M 117.19 g/mol d 0.88 g/cm³ (20 °C) % (w/w) min. 99.5 b.p. 162.36 °C m.p. < –70 °C	H226; H302; H311; H314; H331; H335 Danger		REACH; TSCA; IECSC; ENCS/IS
M 89.14 g/mol d 0.914 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 168 °C m.p. –5.8 °C	H302; H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M 89.14 g/mol d 0.887 g/cm³ (20 °C) % (w/w) min. 99.8 b.p. 134.1 °C m.p. –59 °C	H226; H302; H312; H314; H331; H335 Danger		TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

5.3 Alkylamino Alcohols

No.	Product [CAS Registry No.]	Formula
5.3.8	Methyldiethanolamine [105-59-9]	
5.3.9	Methyldiisopropanolamine [4402-30-6]	
5.3.10	N,N-Dimethylethanolamine S [108-01-0]	
5.3.11	N,N-Dimethylisopropanolamine [108-16-7] Remark 1	
5.3.12	N-Methylethanolamine [109-83-1]	

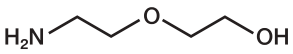
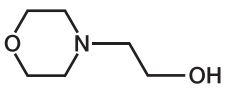
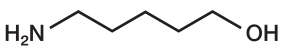
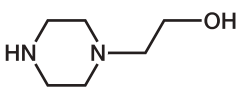
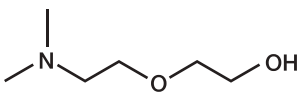
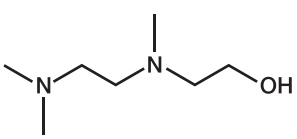
Remarks
1 Also available as 77% aqueous solution on request

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	119.16 g/mol 1.04 g/cm³ (20 °C) min. 99.0 243 °C –21 °C	H319 Warning		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	147.22 g/mol 0.954 g/cm³ (20 °C) min. 98.0 226 – 233 °C < –32 °C	H318 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	89.14 g/mol 0.887 g/cm³ (20 °C) min. 99.8 134.1 °C –59 °C	H226; H302; H312; H314; H331; H335 Danger		TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	103.16 g/mol 0.85 g/cm³ (20 °C) min. 99.0 126 °C –85 °C	H226; H302; H312; H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	75.11 g/mol 0.94 g/cm³ (20 °C) min. 99.0 158 – 160 °C –3 °C	H302; H312; H314; H335 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

5.4 Other Amino Alcohols

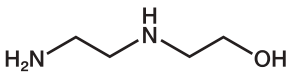
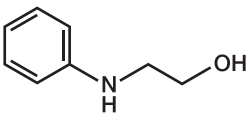
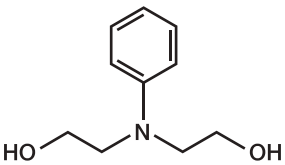
No.	Product [CAS Registry No.]	Formula
5.4.1	2-(2-Aminoethoxy)ethanol [929-06-6]	
5.4.2	3-Amino-1-propanol [156-87-6]	
5.4.3	4-(2-Hydroxyethyl)morpholine [622-40-2]	
5.4.4	5-Amino-1-pentanol sol. 50% [2508-29-4]	
5.4.5	Hydoxyethylpiperazine [103-76-4]	
5.4.6	Lupragen® N 107 – Dimethylaminoethoxyethanol [1704-62-7]	
5.4.7	Lupragen® N 400 – Trimethylaminoethylethanolamine [2212-32-0]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	105.14 g/mol 1.06 g/cm³ (20 °C) min. 98.0 222.6 °C –11 °C	H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	75.11 g/mol 0.99 g/cm³ (20 °C) min. 99.0 187.71 °C 11.5 – 12.4 °C	H302; H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	131.17 g/mol 1.06 g/cm³ (20 °C) min. 99.0 223 – 225 °C 1 – 2 °C	H319 Warning		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	not available 0.9869 g/cm³ (20 °C) min. 97.0 100 – 222 °C –25.6 °C	H302; H314 Danger		REACH
M d % (w/w) b.p. m.p.	130.19 g/mol 1.059.8 g/cm³ (20 °C) min. 98.5 245.8 °C –38.5 °C	H315; H318 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	133.19 g/mol 0.9549 g/cm³ (20 °C) min. 98.0 203.5 °C < –70 °C	H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	146.23 g/mol 0.914 g/cm³ (15 °C) min. 98.5 210 °C < –70 °C	H315; H318 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

5.4 Other Amino Alcohols

No.	Product [CAS Registry No.]	Formula
5.4.8	N-(2-Aminoethyl)ethanolamine [111-41-1]	
5.4.9	N-(2-Hydroxyethyl)aniline [122-98-5]	
5.4.10	N,N-Di-(2-hydroxyethyl)aniline [120-07-0]	

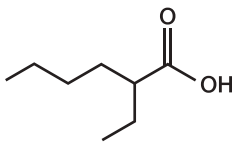
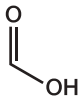
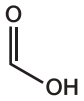
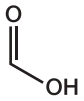
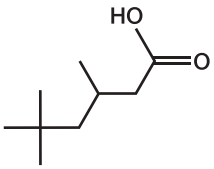
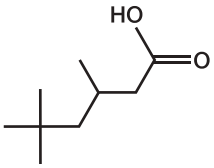
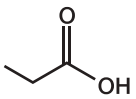
Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 104.15 g/mol d 1.024 g/cm³ (25 °C) % (w/w) min. 99.5 b.p. 243.1 °C m.p. < –18 °C	H314; H317; H360FD Danger		REACH; TSCA; IECSC; ENCS/IS
M 137.18 g/mol d 1.0954 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 278 °C m.p. –32 °C	H301; H311; H318; H373 Danger		REACH; TSCA; IECSC; ENCS/IS
M 181.23 g/mol d 1.1 g/cm³ (60 °C) % (w/w) min. 95.0 b.p. 380 °C m.p. 57.8 °C	H317; H318; H412 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

6 Carboxylic Acids and Derivatives

6.1 Carboxylic Acids

No.	Product [CAS Registry No.]	Formula
6.1.1	2-Ethylhexanoic acid [149-57-5]	
6.1.2	Formic acid 85% [64-18-6] Remark 1	
6.1.3	Formic acid 94% [64-18-6] Remark 2	
6.1.4	Formic acid 99 – 100% [64-18-6] Remark 3	
6.1.5	i-Nonanoic acid [3302-10-1]	
6.1.6	Isononanoic acid C [3302-10-1]	
6.1.7	Propionic acid pure [79-09-4]	

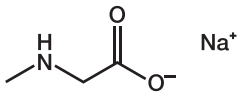
Remarks
1 Also available as 99 – 100% and 94% aqueous solutions, also available in feed grade, see also www.formicacid.de
2 Also available as 99 – 100% and 85% aqueous solutions, also available in feed grade, see also www.formicacid.de
3 Also available as 85% and 94% aqueous solutions, also available in feed grade, see also www.formicacid.de

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 144.21 g/mol d 0.91 g/cm³ (20 °C) % (w/w) min. 99.5 b.p. 226 – 229 °C m.p. –59 °C	H361d Warning		REACH; TSCA; IECSC; ENCS/IS
M 46.03 g/mol d 1.195 g/cm³ (20 °C) % (w/w) min. 85.0 b.p. 107.3 °C m.p. –13 °C	H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M 46.03 g/mol d 1.21 g/cm³ (20 °C) % (w/w) min. 94.0 b.p. 103 °C m.p. –2 °C	H226; H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M 46.03 g/mol d 1.2195 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 100.23 °C m.p. 4 °C	H226; H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M 158.24 g/mol d 0.9 g/cm³ (20 °C) % (w/w) min. 96.0 b.p. 230 – 240 °C m.p. < –60 °C	H302; H315; H318 Danger		REACH; TSCA; IECSC; ENCS/IS
M 158.24 g/mol d 0.8996 g/cm³ (20 °C) % (w/w) min. 96.0 b.p. 230 – 240 °C m.p. –77 °C	H302; H315; H318 Danger		REACH; TSCA; IECSC; ENCS/IS
M 74.08 g/mol d 0.992 g/cm³ (20 °C) % (w/w) min. 99.5 b.p. 140.7 – 141.6 °C m.p. –20 °C	H226; H314 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

6.1 Carboxylic Acids

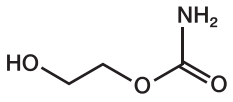
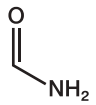
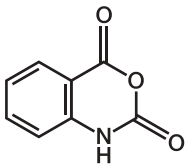
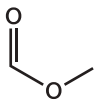
No.	Product [CAS Registry No.]	Formula
6.1.8	Sarcosine sodium 40% sol. [4316-73-8]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	not available 1.21 g/cm³ (20 °C) 39.5 – 40.5 not available 1 – 10 °C	H314 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

6.2 Derivatives

No.	Product [CAS Registry No.]	Formula
6.2.1	2-Hydroxyethyl carbamate [5395-01-7]	
6.2.2	Formamide [75-12-7]	
6.2.3	Isatoic anhydride dry [118-48-9]	
6.2.4	Methyl formate pure [107-31-3]	

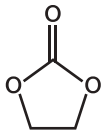
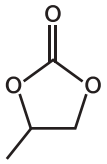
Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	105.09 g/mol 1.26 g/cm³ (20 °C) min. 97.0 130 – 135 °C (1.33 hPa) 10 – 30 °C	H319; H412 Warning		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	45.04 g/mol 1.133 g/cm³ (20 °C) min. 99.5 210 °C 2.2 °C	H351; H360D; H373 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	163.13 g/mol 1.52 g/cm³ (not available) min. 99.5 not available 210 – 225 °C	H317; H319 Warning		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	60.05 g/mol 0.968 g/cm³ (20 °C) min. 97.0 32.3 °C –100.4 °C	H224; H302; H319; H332; H335 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

7 Heterocyclic Compounds

7.1 Carbonates

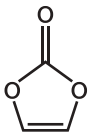
No.	Product [CAS Registry No.]	Formula
7.1.1	3,4-Dihydro-2H-pyrane [110-87-2]	
7.1.2	Carbonate Mix 50	
7.1.3	Carbonate Mix 60	
7.1.4	Ethylene carbonate S® [96-49-1]	
7.1.5	Propylene carbonate S® [108-32-7]	
7.1.6	THF Pharma non-stab. [109-99-9]	
7.1.7	THF Pharma stab. [109-99-9]	

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 84.12 g/mol d 0.927 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 87 °C m.p. –70 °C	H225; H315; H319; EUH019 Danger		REACH; TSCA; IECSC; ENCS/IS
M not available d 1.27 g/cm³ (20 °C) % (w/w) not available b.p. 240 – 246 °C m.p. 0.4 °C			TSCA; IECSC; ENCS/IS
M not available d 1.3 g/cm³ (20 °C) % (w/w) not available b.p. 240 – 246 °C m.p. –10 °C	H319 Warning		TSCA; IECSC; ENCS/IS
M 88.06 g/mol d 1.32 g/cm³ (39 °C) % (w/w) min. 99.5 b.p. 246 °C m.p. 36 °C	H319 Warning		REACH; TSCA; IECSC; ENCS/IS
M 102.09 g/mol d 1.2047 g/cm³ (20 °C) % (w/w) min. 99.7 b.p. 240 – 243 °C m.p. –48.8 °C	H319 Warning		REACH; TSCA; IECSC; ENCS/IS
M 72.11 g/mol d 0.887 g/cm³ (20 °C) % (w/w) min. 99.95 b.p. 65.5 – 66.5 °C m.p. –108.5 °C	H225; H302; H319; H335; H336; EUH019 Danger		REACH; TSCA; IECSC; ENCS/IS
M 72.11 g/mol d 0.887 g/cm³ (20 °C) % (w/w) min. 99.95 b.p. 65.5 – 66.5 °C m.p. –108.5 °C	H225; H302; H319; H335; H336; EUH019 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

7.1 Carbonates

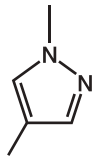
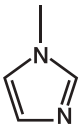
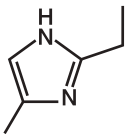
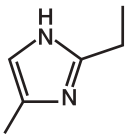
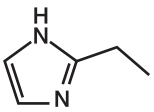
No.	Product [CAS Registry No.]	Formula
7.1.8	THF Pharma stab. super dry [109-99-9]	
7.1.9	Vinylene carbonate E [872-36-6]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	72.11 g/mol 0.887 g/cm³ (20 °C) min. 99.95 65.5 – 66.5 °C –108.50 °C	H225; H302; H319; H335; H336; EUH019 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	86.05 g/mol 1.3535 g/cm³ (25 °C) min. 99.9 162 °C 22 °C	H302; H315; H317; H319 Warning		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

7.2 Imidazoles and Pyrazoles

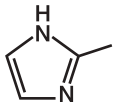
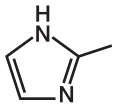
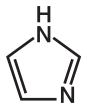
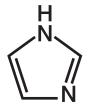
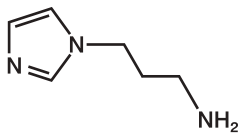
No.	Product [CAS Registry No.]	Formula
7.2.1	1,4-Dimethylpyrazole [1072-68-0]	
7.2.2	1-Methylimidazole [616-47-7]	
7.2.3	2-Ethyl-4-methylimidazole [931-36-2]	
7.2.4	2-Ethyl-4-methylimidazole S [931-36-2]	
7.2.5	2-Ethylimidazole ultra pure [1072-62-4]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	96.13 g/mol 0.9626 g/cm³ (20 °C) min. 99.0 150.37 °C –45.8 °C	H226; H302; H318 Danger		REACH; ENCS/IS
M d % (w/w) b.p. m.p.	82.11 g/mol 1.03 g/cm³ (20 °C) min. 99.0 198 °C –2 °C	H302; H311; H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	110.16 g/mol 0.9715 g/cm³ (40 °C) 87.0 – 92.0 272.8 °C 36 – 42 °C	H302; H315; H318 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	not available 1.0173 g/cm³ (20 °C) 83.0 – 87.0 270 – 276 °C 36 – 42 °C	H302; H311; H314 Danger		TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	96.13 g/mol not available min. 99.0 268 – 270 °C 77 – 78 °C	H302; H315; H318 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

7.2 Imidazoles and Pyrazoles

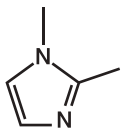
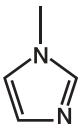
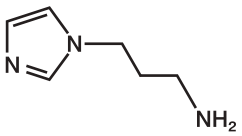
No.	Product [CAS Registry No.]	Formula
7.2.6	2-Methylimidazole flakes [693-98-1]	
7.2.7	2-Methylimidazole pure [693-98-1]	
7.2.8	Imidazole [288-32-4]	
7.2.9	Imidazole aqueous solution 50%	
7.2.10	Lupragen® API – N-(3-Aminopropyl) imidazole [5036-48-6]	

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 82.11 g/mol d not available % (w/w) min. 98.5 b.p. 268 °C m.p. 136 – 138 °C	H302; H314; H360D Danger		REACH; TSCA; IECSC; ENCS/IS
M 82.11 g/mol d not available % (w/w) min. 99.7 b.p. 268 °C m.p. 144 – 145 °C	H302; H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M 68.08 g/mol d 1.0257 g/cm³ (110 °C) % (w/w) min. 99.5 b.p. 256 °C m.p. 88 – 90 °C	H302; H314; H360D; EUH071 Danger		REACH; TSCA; IECSC; ENCS/IS
M 68.08 g/mol d 1 g/cm³ (20 °C) % (w/w) 50.0 b.p. 104 °C m.p. 2 °C	H302; H314; H360; EUH071 Danger		REACH; TSCA; IECSC; ENCS/IS
M 125.17 g/mol d 1.062 g/cm³ (20 °C) % (w/w) min. 97.0 b.p. 296 °C m.p. –68 °C	H302; H314 Danger		REACH; TSCA; IECSC

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

7.2 Imidazoles and Pyrazoles

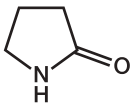
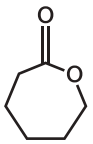
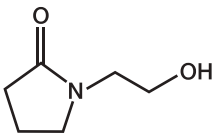
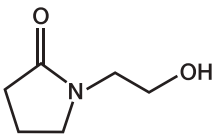
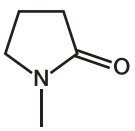
No.	Product [CAS Registry No.]	Formula
7.2.11	Lupragen® DMI – 1,2-Dimethylimidazole [1739-84-0]	
7.2.12	Lupragen® NMI – N-Methylimidazole [616-47-7]	
7.2.13	N-(3-Aminopropyl)imidazole [5036-48-6]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	96.13 g/mol 0.99 g/cm³ (40 °C) min. 96.0 205 °C 20 – 40 °C	H302; H315; H318; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	82.11 g/mol 1.03 g/cm³ (20 °C) min. 99.0 198 °C –2 °C	H302; H311; H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	125.17 g/mol 1.062 g/cm³ (20 °C) min. 97.0 296 °C –68 °C	H302; H314 Danger		REACH; TSCA; IECSC

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

7.3 Lactones and Lactams

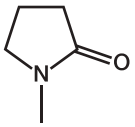
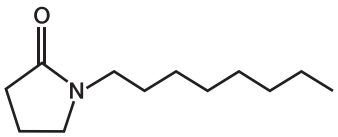
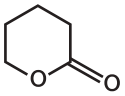
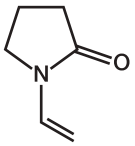
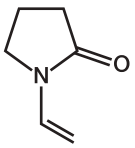
No.	Product [CAS Registry No.]	Formula
7.3.1	2-Pyrrolidone dist. [616-45-5]	
7.3.2	epsilon-Caprolactone [502-44-3]	
7.3.3	N-(2-Hydroxyethyl)-2-pyrrolidone [3445-11-2]	
7.3.4	N-(2-Hydroxyethyl)-2-pyrrolidone 95% [3445-11-2]	
7.3.5	N-Methylpyrrolidone dist. [872-50-4]	

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 85.11 g/mol d 1.103 g/cm³ (30 °C) % (w/w) min. 99.5 b.p. 250 °C m.p. 25.5 °C	H319 Warning		REACH; TSCA; IECSC; ENCS/IS
M 114.14 g/mol d 1.07 g/cm³ (20 °C) % (w/w) min. 99.8 b.p. 241 °C m.p. –2 °C	H319 Warning		REACH; TSCA; IECSC; ENCS/IS
M 129.16 g/mol d 1.1448 g/cm³ (20 °C) % (w/w) min. 99.5 b.p. 309 °C m.p. 26.4 °C			REACH; TSCA; IECSC
M 129.16 g/mol d 1.1448 g/cm³ (20 °C) % (w/w) 94.0 – 96.0 b.p. 309 °C m.p. 26.4 °C			REACH; TSCA; IECSC
M 99.13 g/mol d 1.028 g/cm³ (25 °C) % (w/w) min. 99.8 b.p. 204.3 °C m.p. –23.6 °C	H315; H319; H335; H360D Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

7.3 Lactones and Lactams

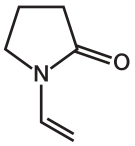
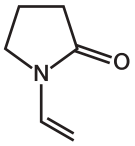
No.	Product [CAS Registry No.]	Formula
7.3.6	N-Methylpyrrolidone Life Science [872-50-4]	
7.3.7	N-Octyl-2-pyrrolidone dist. [2687-94-7]	
7.3.8	delta-Valerolactone [542-28-9]	
7.3.9	N-Vinyl-2-pyrrolidone stab. 0.1% NaOH [88-12-0]	
7.3.10	N-Vinyl-2-pyrrolidone stab. 10 ppm Kerobit [88-12-0]	

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 99.13 g/mol d 1.028 g/cm³ (25 °C) % (w/w) min. 99.8 b.p. 204.3 °C m.p. –23.6 °C	H315; H319; H335; H360D Danger		REACH; TSCA; IECSC; ENCS/IS
M 197.32 g/mol d 0.92 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 306 – 307 °C m.p. –26 °C	H314; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M 100.12 g/mol d 1.107 g/cm³ (20 °C) % (w/w) min. 97.0 b.p. 230 °C m.p. –12.5 °C	H318 Danger		REACH; TSCA; IECSC; ENCS/IS
M 111.14 g/mol d 1.043 g/cm³ (20 °C) % (w/w) min. 99.5 b.p. 92 °C (13 hPa) m.p. 13 – 14 °C	H302; H311; H318; H331; H335; H351; H373 Danger		REACH; TSCA; IECSC; ENCS/IS
M 111.14 g/mol d 1.043 g/cm³ (20 °C) % (w/w) min. 99.5 b.p. 90 – 92 °C (13 hPa) m.p. 13 – 14 °C	H302; H311; H318; H331; H335; H351; H373 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

7.3 Lactones and Lactams

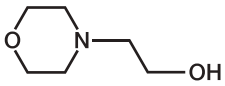
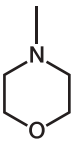
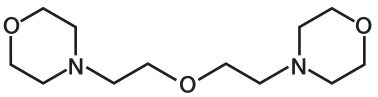
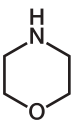
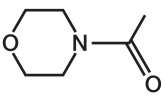
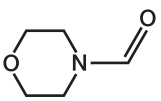
No.	Product [CAS Registry No.]	Formula
7.3.11	N-Vinyl-2-pyrrolidone stab. 100 ppm Kerobit [88-12-0]	
7.3.12	N-Vinyl-2-pyrrolidone stab. 25 ppm Kerobit [88-12-0]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	111.14 g/mol 1.043 g/cm³ (20 °C) min. 99.5 90 – 92 °C (13 hPa) 13 – 14 °C	H302; H311; H318; H331; H335; H351; H373 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	111.14 g/mol 1.043 g/cm³ (20 °C) min. 99.5 90 – 92 °C (13 hPa) 13 – 14 °C	H302; H311; H318; H331; H335; H351; H373 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

7.4 Morpholines

No.	Product [CAS Registry No.]	Formula
7.4.1	4-(2-Hydroxyethyl)morpholine [622-40-2]	
7.4.2	AMIX M [68909-77-3] Remark 1	
7.4.3	Lupragen® N 105 – N-Methylmorpholine [109-02-4] Remark 2	
7.4.4	Lupragen® N 106 – 2,2'-Dimorpholinodiethylether [6425-39-4]	
7.4.5	Morpholine [110-91-8]	
7.4.6	N-Acetylmorpholine [1696-20-4]	
7.4.7	N-Formylmorpholine [4394-85-8]	

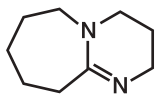
Remarks
1 High boiling morpholine derivatives
2 Methylmorpholine P is available for pharma applications

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 131.17 g/mol d 1.06 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 223 – 225 °C m.p. 1 – 2 °C	H319 Warning		REACH; TSCA; IECSC; ENCS/IS
M not available d 1.0993 g/cm³ (20 °C) % (w/w) not available b.p. 266 – 330 °C m.p. –65 °C	H315; H317; H318 Danger		REACH; TSCA; IECSC
M 101.15 g/mol d 0.82 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 115 °C m.p. –65 °C	H225; H312; H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M 244.33 g/mol d 1.0603 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 309 °C m.p. –28 °C	H315; H319 Warning		REACH; TSCA; IECSC; ENCS/IS
M 87.12 g/mol d 1.00 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 128 – 130 °C m.p. –5 °C	H226; H302; H311; H314; H332 Danger		REACH; TSCA; IECSC; ENCS/IS
M 129.16 g/mol d 1.115 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 244.7 °C m.p. 14 °C			REACH; TSCA; IECSC
M 115.13 g/mol d 1.1429 g/cm³ (20 °C) % (w/w) min. 99.5 b.p. 244 °C m.p. 23 °C			REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

7.5 Other Heterocycles

No.	Product [CAS Registry No.]	Formula
7.5.1	1,4-Dioxan stab. ultra pure [123-91-1] Remark 1	
7.5.2	1,4-Dioxane [123-91-1]	
7.5.3	1,4-Dioxane stab. [123-91-1]	
7.5.4	Lupragen® N 201 – Triethylenediamine in dipropyleneglycol [280-57-9] Remark 2	
7.5.5	Lupragen® N 203 – Triethylenediamine in monoethyleneglycol [280-57-9] Remark 2	
7.5.6	Lupragen® N 700 – 1,8-Diazabicyclo-5,4,0-undecene-7 [6674-22-2] Remark 3	

Remarks
1 Only upon request
2 Exclusively marketed by Evonik Industries AG
3 Diazabicycloundecene P is available for pharma applications

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	88.1 g/mol 1.034 g/cm³ (20 °C) min. 99.9 100 – 102.5 °C 11 °C	H225; H319; H335; H351 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	88.1 g/mol 1.0300 g/cm³ (20 °C) min. 99.8 100 – 102.5 °C 12 °C	H225; H319; H335; H351; EUH019 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	88.1 g/mol 1.034 g/cm³ (20 °C) min. 99.8 100 – 102.5 °C 11 °C	H225; H319; H335; H351; EUH019 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	not available 1.025 g/cm³ (20 °C) 33.1 – 33.5 not available –39 °C	H302; H315; H318 Danger		TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	not available 1.09 g/cm³ (25 °C) 33.1 – 33.5 196 °C –67 °C	H302; H315; H318; H335 Danger		TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	152.24 g/mol 1.019 g/cm³ (20 °C) min. 98.0 261.86 °C –70 °C	H302; H314; H412 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

7.6 Oxiranes

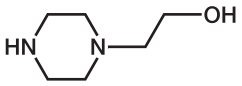
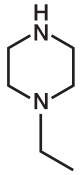
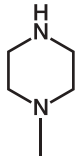
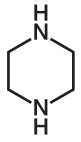
No.	Product [CAS Registry No.]	Formula
7.6.1	Isobutyleneoxide [558-30-5]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	72.11 g/mol 0.81 g/cm³ (20 °C) min. 99.0 51 °C not available	H225; H314 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

7.7 Piperazines

No.	Product [CAS Registry No.]	Formula
7.7.1	Hydroxyethylpiperazine [103-76-4]	
7.7.2	N-Ethylpiperazine [5308-25-8]	
7.7.3	N-Methylpiperazine [109-01-3]	
7.7.4	Piperazine [110-85-0] Remark 1	

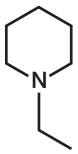
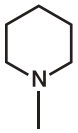
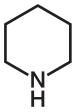
Remarks
1 Available as chips or 68% aqueous solution

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	130.19 g/mol 1.059.8 g/cm³ (20 °C) min. 98.5 245.8 °C –38.5 °C	H315; H318 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	114.19 g/mol 0.895 g/cm³ (20 °C) min. 99.0 155 °C < –60 °C	H226; H302; H314 Danger		REACH
M d % (w/w) b.p. m.p.	100.16 g/mol 0.903 g/cm³ (20 °C) min. 99.0 136.66 °C –5.57 °C	H226; H312; H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	86.14 g/mol not available min. 99.9 147.7 °C 107 – 111 °C	H228; H314; H317; H334; H361fd Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

7.8 Piperidines

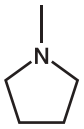
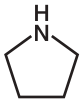
No.	Product [CAS Registry No.]	Formula
7.8.1	N-Ethylpiperidine [766-09-6]	
7.8.2	N-Methylpiperidine 80% calc. 100% [626-67-5]	
7.8.3	Piperidine [110-89-4]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	113.20 g/mol 0.82 g/cm³ (20 °C) min. 99.0 131 °C < –50 °C	H225; H301; H314; H331; H412 Danger		REACH; TSCA; IECSC
M d % (w/w) b.p. m.p.	99.18 g/mol 0.87 g/cm³ (20 °C) 77.0 – 83.0 106.56 °C –103.23 °C	H225; H302; H314; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	85.15 g/mol 0.861 g/cm³ (20 °C) min. 99.0 106 – 107 °C –11.5 °C	H225; H311; H314; H331 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

7.9 Pyrrolidines

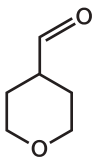
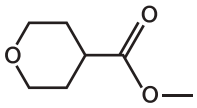
No.	Product [CAS Registry No.]	Formula
7.9.1	N-Methylpyrrolidine [120-94-5]	
7.9.2	Pyrrolidine pure [123-75-1]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	85.15 g/mol 0.80 g/cm³ (20 °C) min. 98.0 78 – 82 °C < –80 °C	H225; H301; H314; H332; H411 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	71.12 g/mol 0.866 g/cm³ (20 °C) min. 99.0 86 – 88 °C < –60 °C	H225; H302; H314; H332 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

7.10 Tetrahydropyrans

No.	Product [CAS Registry No.]	Formula
7.10.1	4-Formyltetrahydropyran [50675-18-8]	
7.10.2	Tetrahydropyran-4-carboxylic acid methylester [110238-91-0]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	114.14 g/mol 1.046 g/cm³ (20 °C) min. 97.0 184.3 °C –67 °C	H317; H319 Warning		REACH; ENCS/IS
M d % (w/w) b.p. m.p.	144.17 g/mol 1.08 g/cm³ (20 °C) min. 98.0 196.8 °C –33.0 °C	H319; H412 Warning		REACH

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

8 Optically Active Compounds

8.1 Chiral Alcohols and Epoxides

No.	Product [CAS Registry No.]	Formula
8.1.1	ChiPros® (S)-Butan-2-ol [4221-99-2] Remark 1	

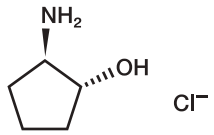
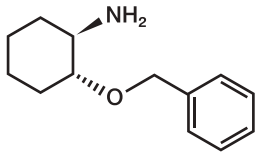
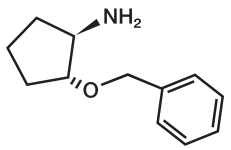
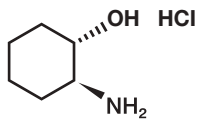
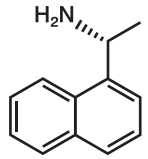
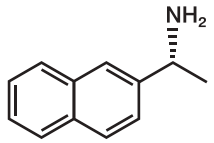
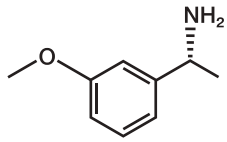
Remarks
1 Developmental products, material available on request

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	74.12 g/mol 0.80 g/cm³ (20 °C) min. 99.0 99 – 100 °C –114.7 °C	H226; H319; H335; H336 Warning		REACH; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

8.2 Chiral Amines

No.	Product [CAS Registry No.]	Formula
8.2.1	ChiPros® (1R,2R)-trans-2-Amino-cyclopentanol hydrochloride [68327-11-7] Remark 1	
8.2.2	ChiPros® (1R,2R)-trans-2-Benzyloxycyclohexylamine [216394-06-8] Remark 1	
8.2.3	ChiPros® (1R,2R)-1-Amino-2-Benzyloxy-cyclopentane [181657-56-7] Remark 1	
8.2.4	ChiPros® (1R,2R)-trans-2-Aminocyclo-hexanol hydrochloride [13374-31-7] Remark 1	
8.2.5	ChiPros® (R)-1-(1-Naphthyl)ethylamine [3886-70-2] Remark 1	
8.2.6	ChiPros® (R)-1-(2-Naphthyl)ethylamine [3906-16-9] Remark 1	
8.2.7	ChiPros® (R)-1-(3-Methoxyphenyl)-ethylamine [88196-70-7] Remark 1	

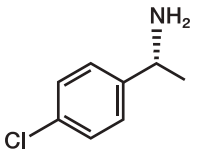
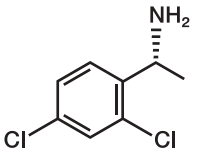
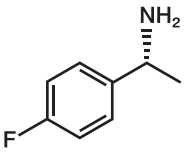
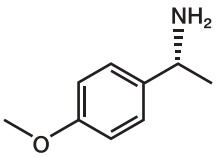
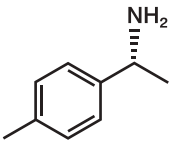
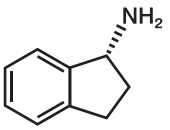
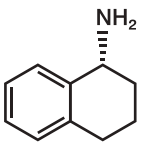
Remarks
1 Developmental products, material available on request

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 137.62 g/mol d not available % (w/w) min. 99.0 b.p. not available m.p. 158 – 160 °C			
M 205.30 g/mol d 1.001 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 79 – 80 °C (0.1 hPa) m.p. 21 °C	H302; H314; H411 Danger		
M 191,27 g/mol d 1.03 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 90 °C (0.3 hPa) m.p. < –50 °C	H314; H300; H317; H411 Danger		
M 151.63 g/mol d not available % (w/w) min. 99.0 b.p. not available m.p. 157 °C			
M 171.24 g/mol d 1.06 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 93 °C (0.4 hPa) m.p. not available	H301; H312; H314; H411 Danger		REACH; TSCA; IECSC; ENCS/IS
M 171.2 g/mol d not available % (w/w) min. 99.0 b.p. 69 – 97 °C (0.2 hPa) m.p. not available			
M 151.21 g/mol d 1.02 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 240 °C m.p. 5.4 °C	H302; H314; H332; H412 Danger		

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

8.2 Chiral Amines

No.	Product [CAS Registry No.]	Formula
8.2.8	ChiPros® (R)-1-(4-Chlorphenyl)ethyl-amine/Clophar [27298-99-3] Remark 1	
8.2.9	ChiPros® (R)-1-(2,4-Chlorphenyl)ethyl-amine [133773-29-2] Remark 1	
8.2.10	ChiPros® (R)-1-(4-Fluorphenyl)ethylamine [374898-01-8] Remark 1	
8.2.11	ChiPros® (R)-1-(4-Methoxyphenyl)-ethylamine [22038-86-4] Remark 1	
8.2.12	ChiPros® (R)-1-(4-Methylphenyl)-ethylamine [4187-38-6] Remark 1	
8.2.13	ChiPros® (R)-1-Aminoindane [10277-74-4] Remark 1	
8.2.14	ChiPros® (R)-1-Aminotetraline [23357-46-2] Remark 1	

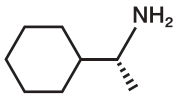
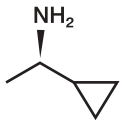
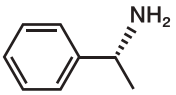
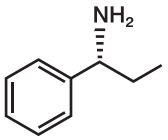
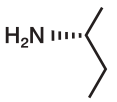
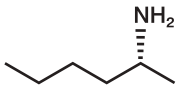
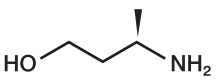
Remarks
1 Developmental products, material available on request

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 155.6 g/mol d not available % (w/w) min. 96.0 b.p. 232°C m.p. not available			
M 190.07 g/mol d 1.256 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 60 °C (0.5 hPa) m.p. < –70 °C	H319; H315; H302; H317; H411 Warning		
M 139.17 g/mol d 1.03 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 76 °C (29 hPa) m.p. –30 °C	H302; H315; H318; H411 Danger		
M 151.21 g/mol d 1.02 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 65 °C (0.5 hPa) m.p. < –20 °C	H302; H312; H314 Danger		REACH
M 135.21 g/mol d 0.94 g/cm³ (20 °C) % (w/w) min. 96.0 b.p. 204 °C m.p. < –20 °C	H302; H312; H314; H317 Danger		
M 133.2 g/mol d 1.098 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 69 – 97 °C (11 hPa) m.p. not available			
M 147.22 g/mol d 1.02 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 118 – 120 °C (10 hPa) m.p. < –20 °C	H302; H315; H412 Warning		

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

8.2 Chiral Amines

No.	Product [CAS Registry No.]	Formula
8.2.15	ChiPros® (R)-1-Cyclohexylethylamine [5913-13-3] Remark 1	
8.2.16	ChiPros® (R)-1-Cyclopropylethylamine [6240-96-6] Remark 1	
8.2.17	ChiPros® (R)-1-Phenylethylamine [3886-69-9]	
8.2.18	ChiPros® (R)-1-Phenylpropylamine [3082-64-2] Remark 1	
8.2.19	ChiPros® (R)-2-Aminobutane [13250-12-9] Remark 1	
8.2.20	ChiPros® (R)-2-Hexylamine [70095-40-8] Remark 1	
8.2.21	ChiPros® (R)-3-Aminobutan-1-ol [61477-40-5]	

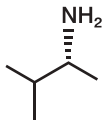
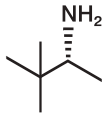
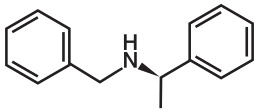
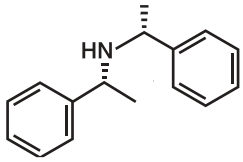
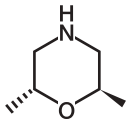
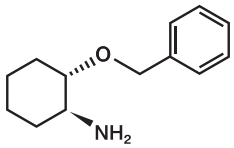
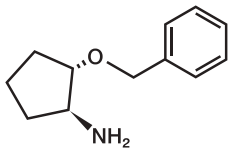
Remarks
1 Developmental products, material available on request

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 127.23 g/mol d 0.85 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 175 °C m.p. < –20 °C	H226; H302; H311; H314; H411 Danger		REACH
M 85.15 g/mol d 0.7991 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 95 – 98 °C m.p. –68 °C			
M 121.18 g/mol d 0.9491 g/cm³ (25 °C) % (w/w) min. 99.0 b.p. 187 °C m.p. –10 °C	H302; H311; H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M 135.21 g/mol d 0.93 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 205 °C m.p. –69 °C	H301; H314; H373; H411 Danger		
M 73.14 g/mol d 0.723 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 63 – 65 °C m.p. < –100 °C	H225; H302; H314; H332; H400 Danger		REACH; ENCS/IS
M 101.2 g/mol d not available % (w/w) min. 99.0 b.p. 116 °C m.p. not available			
M 89.14 g/mol d 0.9459 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 90 °C (20 hPa) m.p. < –30 °C	H302; H314 Danger		

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

8.2 Chiral Amines

No.	Product [CAS Registry No.]	Formula
8.2.22	ChiPros® (R)-3-Methyl-2-butylamine [34701-33-2] Remark 1	
8.2.23	ChiPros® (R)-3,3-Dimethyl-2-amino-butane [66228-31-7] Remark 1	
8.2.24	ChiPros® (R)-N-Benzyl-1-phenylethyl-amine [38235-77-7] Remark 1	
8.2.25	ChiPros® Bis[(R)-1-Phenylethyl]-amine [23294-41-9] Remark 1	
8.2.26	ChiPros® (2R,6R)-Dimethylmorpholine [171753-74-5] Remark 1	
8.2.27	ChiPros® (1S,2S)-trans-2-Benzyloxycyclohexylamine [216394-07-9] Remark 1	
8.2.28	ChiPros® (1S,2S)-1-Amino-2-Benzyloxy-cyclopentane [181657-57-8] Remark 1	

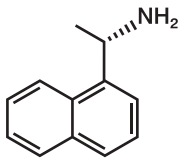
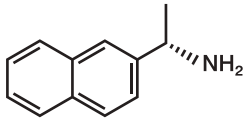
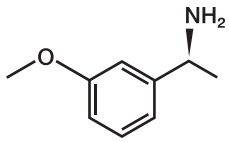
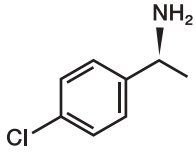
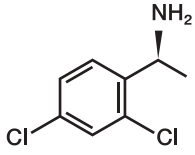
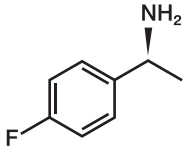
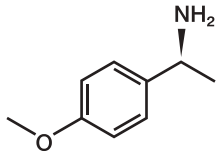
Remarks
1 Developmental products, material available on request

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 87.2 g/mol d not available % (w/w) min. 99.0 b.p. 84 – 87 °C	H225; H301; H315; H318; H411 Danger		
M 101.19 g/mol d 0.755 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 103 °C m.p. –4 °C	H225; H302; H314; H412 Danger		
M 211.31 g/mol d 1.01 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 155 °C (75 hPa) m.p. not available	H302; H315 Warning		REACH
M 225.33 g/mol d not available % (w/w) min. 99.0 b.p. 98 °C (0.4 hPa) m.p. not available	H315; H311; H302; H401 Danger		
M 115.18 g/mol d 0.935 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 83 °C (100 hPa) m.p. < –10 °C	H226; H312; H302; H314 Danger		
M 205.3 g/mol d not available % (w/w) min. 98.0 b.p. 79 – 80 °C (0.1 hPa) m.p. not available			
M 191,27 g/mol d 1.03 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 90 °C (0.3 hPa) m.p. < -50 °C	H314; H300; H317; H411 Danger		

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

8.2 Chiral Amines

No.	Product [CAS Registry No.]	Formula
8.2.29	ChiPros® (S)-1-(1-Naphthyl)ethylamine [10420-89-0] Remark 1	
8.2.30	ChiPros® (S)-1-(2-Naphthyl)ethylamine [3082-62-0] Remark 1	
8.2.31	ChiPros® (S)-1-(3-Methoxyphenyl)-ethylamine [82796-69-8] Remark 1	
8.2.32	ChiPros® (S)-1-(4-Chlorphenyl)ethyl-amine/Clophas [4187-56-8] Remark 1	
8.2.33	ChiPros® (S)-1-(2,4-Chlorphenyl)ethyl-amine [133492-69-0] Remark 1	
8.2.34	ChiPros® (S)-1-(4-Fluorphenyl)ethylamine [66399-30-2] Remark 1	
8.2.35	ChiPros® (S)-1-(4-Methoxyphenyl)-ethylamine [41851-59-6] Remark 1	

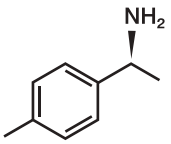
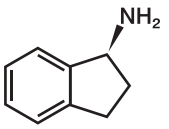
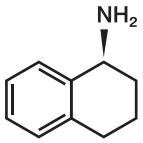
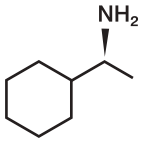
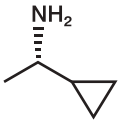
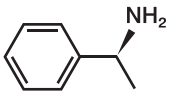
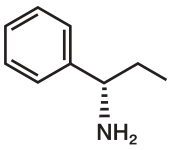
Remarks
1 Developmental products, material available on request

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 171.24 g/mol d 1.06 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 93 °C (0.4 hPa) m.p. not available	H301; H314; H411 Danger		REACH; TSCA; IECSC; ENCS/IS
M 171.24 g/mol d not available % (w/w) min. 99.0 b.p. 90 °C (0.2 hPa) m.p. 52 °C	H315; H319; H411 Warning		REACH; ENCS/IS
M 151.21 g/mol d 1.02 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 240 °C m.p. 5.4 °C	H302; H314; H317; H332; H412 Danger		
M 155.6 g/mol d not available % (w/w) min. 96.0 b.p. 232 °C m.p. not available			
M 190.07 g/mol d 1.256 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 60 °C (0.5 hPa) m.p. < –70 °C			
M 139.17 g/mol d 1.03 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 76 °C (29 hPa) m.p. –30 °C	H302; H315; H318; H411 Danger		
M 151.21 g/mol d 1.02 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 65 °C (0.5 hPa) m.p. < –20 °C	H302; H312; H314 Danger		

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

8.2 Chiral Amines

No.	Product [CAS Registry No.]	Formula
8.2.36	ChiPros® (S)-1-(4-Methylphenyl)-ethylamine [27298-98-2] Remark 1	
8.2.37	ChiPros® (S)-1-Aminoindane [61341-86-4] Remark 1	
8.2.38	ChiPros® (S)-1-Aminotetraline [23357-52-0] Remark 1	
8.2.39	ChiPros® (S)-1-Cyclohexylethylamine [17430-98-7] Remark 1	
8.2.40	ChiPros® (S)-1-Cyclopropylethylamine [195604-39-8] Remark 1	
8.2.41	ChiPros® (S)-1-Phenylethylamine [2627-86-3]	
8.2.42	ChiPros® (S)-1-Phenylpropylamine [3789-59-1] Remark 1	

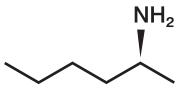
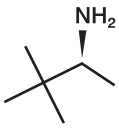
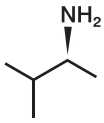
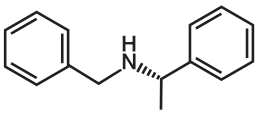
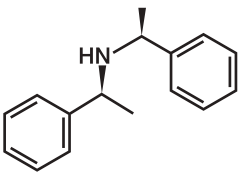
Remarks
1 Developmental products, material available on request

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 135.21 g/mol d 0.94 g/cm³ (20 °C) % (w/w) min. 96.0 b.p. 77 °C (15 hPa)	H302; H312; H314 Danger		
M 133.2 g/mol d 1.098 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 69 – 97 °C (11 hPa) m.p. not available			
M 147.22 g/mol d 1.02 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 250 °C m.p. < –20 °C	H302; H314; H332; H411 Danger		
M 127.23 g/mol d 0.875 g/cm³ (15 °C) % (w/w) min. 98.0 b.p. 175 °C m.p. not available	H226; H302; H311; H314 Danger		
M 85.15 g/mol d 0.7991 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 95 – 98 °C m.p. –68 °C			
M 121.18 g/mol d 0.94 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 187 °C m.p. –10 °C	H302; H311; H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M 135.21 g/mol d 0.93 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 205 °C m.p. –69 °C	H302; H314; H373; H411 Danger		REACH

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

8.2 Chiral Amines

No.	Product [CAS Registry No.]	Formula
8.2.43	ChiPros® (S)-2-Hexylamine [70492-67-0] Remark 1	
8.2.44	ChiPros® (S)-3,3-Dimethyl-2-aminobutane [22526-47-2] Remark 1	
8.2.45	ChiPros® (S)-3-Methyl-2-butylamine [22526-46-1] Remark 1	
8.2.46	ChiPros® (S)-N-Benzyl-1-phenylethyl-amine [17480-69-2] Remark 1	
8.2.47	ChiPros® Bis[(S)-1-Phenylethyl]-amine [56210-72-1] Remark 1	

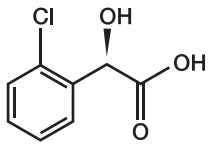
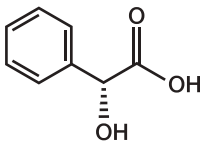
Remarks
1 Developmental products, material available on request

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 101.2 g/mol d not available % (w/w) min. 99.0 b.p. 116 °C m.p. not available			
M 101.19 g/mol d 0.7551 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 103 °C m.p. –4 °C	H225; H302; H314; H412 Danger		ENCS/IS
M 87.2 g/mol d not available % (w/w) min. 99.0 b.p. 84 – 87 °C m.p. not available			
M not available d 0.94 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 82 – 85 °C (0.4 hPa) m.p. not available	H302; H315 Warning		
M 225.33 d not available % (w/w) min. 99.0 b.p. 98 °C (0.4 hPa) m.p. not available	H302; H315; H411 Warning		

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

8.3 Chiral Carboxylic Acids and Derivatives

No.	Product [CAS Registry No.]	Formula
8.3.1	ChiPros® (R)-2-Chloromandelic acid [52950-18-2]	
8.3.2	ChiPros® (R)-Mandelic acid [611-71-2]	

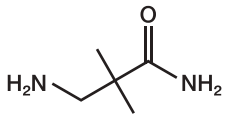
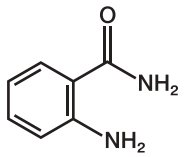
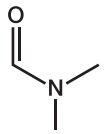
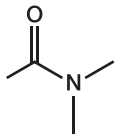
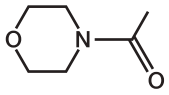
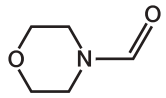
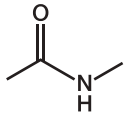
Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	186.59 g/mol 1.48 g/cm³ (20 °C) min. 99.0 not available 121 – 123 °C	H317; H318 Danger		REACH
M d % (w/w) b.p. m.p.	152.15 g/mol not available min. 99.0 249.17 °C 131 – 135 °C	H318 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

9 Others

9.1 Amides

No.	Product [CAS Registry No.]	Formula
9.1.1	3-Amino-2,2-dimethylpropionicacid amide [324763-51-1]	
9.1.2	Anthranilic acid amide dry [88-68-6]	
9.1.3	Dimethylformamide [68-12-2] Remark 1	
9.1.4	N,N-Dimethylacetamide [127-19-5] Remark 2	
9.1.5	N-Acetylmorpholine [1696-20-4]	
9.1.6	N-Formylmorpholine [4394-85-8]	
9.1.7	N-Methylacetamide [79-16-3]	

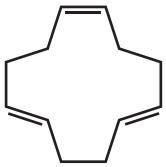
Remarks
1 Also available as high purity special grade
2 Also available as electronic grade

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 116.16 g/mol d not available % (w/w) min. 99.0 b.p. not available m.p. 82.6 °C	H318 Danger		REACH
M 136.15 g/mol d not available % (w/w) min. 99.0 b.p. not available m.p. 107 – 111 °C	H318 Danger		REACH; TSCA; IECSC
M 73.09 g/mol d 0.94 g/cm³ (20 °C) % (w/w) min. 99.9 b.p. 152 – 153 °C m.p. –61 °C	H226; H312; H319; H332; H360D Danger		REACH; TSCA; IECSC; ENCS/IS
M 87.12 g/mol d 0.94 g/cm³ (20 °C) % (w/w) min. 99.8 b.p. 165 – 166 °C m.p. –20 °C	H312; H319; H332; H360D Danger		REACH; TSCA; IECSC; ENCS/IS
M 129.16 g/mol d 1.115 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 244.7 °C m.p. 14 °C			REACH; TSCA; IECSC
M 115.13 g/mol d 1.1429 g/cm³ (20 °C) % (w/w) min. 99.5 b.p. 244 °C m.p. 23 °C			REACH; TSCA; IECSC; ENCS/IS
M 73.09 g/mol d 0.946 g/cm³ (35 °C) % (w/w) min. 99.0 b.p. 206 – 208 °C m.p. 29 – 30 °C	H360 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

9.2 Hydrocarbons

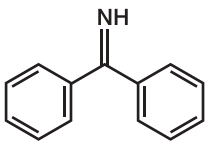
No.	Product [CAS Registry No.]	Formula
9.2.1	Cyclododecatriene [4904-61-4]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	162.27 g/mol 0.892 g/cm³ (20 °C) min. 99.0 238 – 242 °C –17 °C	H304; H400; H410 Danger		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

9.3 Imines

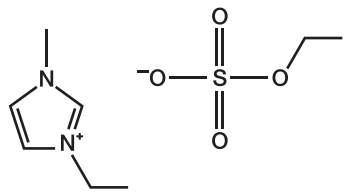
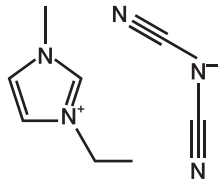
No.	Product [CAS Registry No.]	Formula
9.3.1	Benzophenonimine techn. [1013-88-3]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	181.24 g/mol 1.08 g/cm³ (20 °C) min. 93.0 216 °C (100 hPa) –30 °C	H315; H319; H411 Warning		REACH

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

9.4 Ionic Liquids

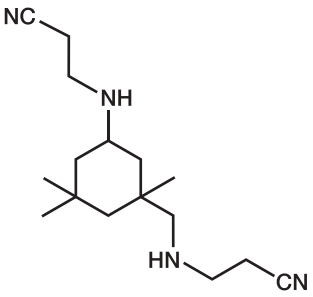
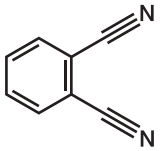
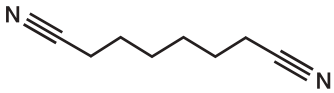
No.	Product [CAS Registry No.]	Formula
9.4.1	Basionics™ LQ 01 [342573-75-5]	
9.4.2	Basionics™ VS 03 [370865-89-7]	

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 236.3 g/mol d 1.2391 g/cm³ (20 °C) % (w/w) min. 98.0 b.p. not applicable m.p. < –30 °C			REACH; TSCA; IECSC; ENCS/IS
M 177.21 g/mol d 1.1 g/cm³ (20 °C) % (w/w) min. 98.0 b.p. not applicable m.p. –11 °C	H302; H317; H318 Danger		REACH

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

9.5 Nitriles

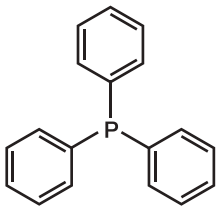
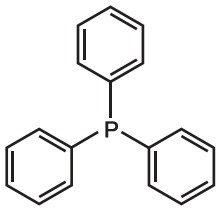
No.	Product [CAS Registry No.]	Formula
9.5.1	Baxxodur® PC 136 [93940-97-7]	
9.5.2	o-Phthalodinitrile [91-15-6]	
9.5.3	Suberonitrile [629-40-3]	

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 276.4 g/mol d 0.9878 g/cm³ (20 °C) % (w/w) min. 95.0 b.p. > 200 °C m.p. < –20 °C	H302; H317; H412 Warning		REACH; TSCA; IECSC
M 128.13 g/mol d 1.24 g/cm³ (20 °C) % (w/w) min. 98.0 b.p. 304.5 °C m.p. 141 – 142 °C	H301; H311; H331; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M 136.20 g/mol d 0.942 g/cm³ (20 °C) % (w/w) min. 97.0 b.p. 325 °C m.p. –4 °C	H302 Warning		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

9.6 Phosphorus Compounds

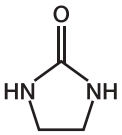
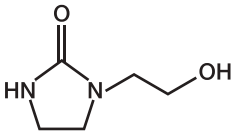
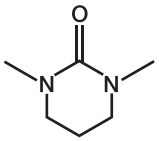
No.	Product [CAS Registry No.]	Formula
9.6.1	Triphenyl phosphine molten [603-35-0]	
9.6.2	Triphenyl phosphine pellets [603-35-0]	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	262.29 g/mol 1.194 g/cm³ (20 °C) min. 99.5 195 – 205 °C (7 hPa) 79 – 81 °C	H302; H317; H373 Warning		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	262.29 g/mol 1.194 g/cm³ (20 °C) min. 99.5 195 – 205 °C (7 hPa) 81.3 – 81.6 °C	H302; H317; H373 Warning		REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

9.7 Urea Derivatives

No.	Product [CAS Registry No.]	Formula
9.7.1	Ethylene urea [120-93-4] Remark 1	
9.7.2	N-(2-Hydroxyethyl)ethylene urea [3699-54-5] Remark 2	
9.7.3	N,N'-Dimethyl propylene urea [7226-23-5]	

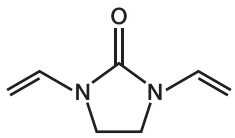
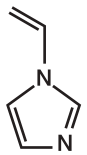
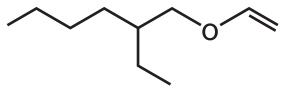
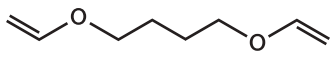
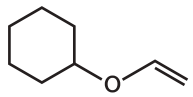
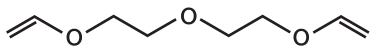
Remarks
1 Available in crystalline form and as 30% aqueous solution
2 Also available as 75% aqueous solution

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	86.09 g/mol not available 87.0 – 90.0 132.6 °C 68.2 °C	H319 Warning		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	130.15 g/mol 1.203 g/cm³ (70 °C) min. 98.0 > 280 °C 54 °C			REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	128.17 g/mol 1.064 g/cm³ (20 °C) min. 99.0 246.5 °C –14 °C	H302; H315; H318; H361f Danger		REACH; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

9.8 Vinyl Compounds and Ethers

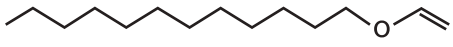
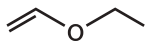
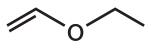
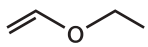
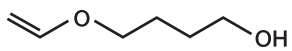
No.	Product [CAS Registry No.]	Formula
9.8.1	1,3-Divinylimidazolidin-2-one [13811-50-2]	
9.8.2	1-Vinylimidazole [1072-63-5]	
9.8.3	2-Ethylhexyl vinyl ether [103-44-6]	
9.8.4	3,4-Dihydro-2H-pyrane [110-87-2]	
9.8.5	Butanediol divinyl ether [3891-33-6]	
9.8.6	Cyclohexyl vinyl ether [2182-55-0]	
9.8.7	Diethyleneglycol divinyl ether [764-99-8]	

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 138.17 g/mol d 1.02 g/cm³ (90 °C) % (w/w) min. 99.0 b.p. 108 °C (4 hPa) m.p. 65 – 67 °C			REACH; IECSC
M 94.12 g/mol d 1.039 g/cm³ (20 °C) % (w/w) min. 99.5 b.p. 192 °C m.p. < –50 °C	H302; H318 Danger		REACH; TSCA; IECSC; ENCS/IS
M 156.27 g/mol d 0.809 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 177 °C m.p. –100 °C	H226; H302; H315; H319; H411 Warning		REACH; ENCS/IS
M 84.12 g/mol d 0.927 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 87 °C m.p. –70 °C	H225; H315; H319; EUH019 Danger		REACH; TSCA; IECSC; ENCS/IS
M 142.20 g/mol d 0.898 g/cm³ (20 °C) % (w/w) min. 95.0 b.p. 166 °C m.p. –8 °C	H226; H412 Warning		REACH; TSCA; IECSC
M 126.20 g/mol d 0.891 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 150 – 152 °C m.p. –109 °C	H226; H315; H412 Warning		REACH; TSCA; IECSC; ENCS/IS
M 158.20 g/mol d 0.968 g/cm³ (20 °C) % (w/w) min. 99.5 b.p. 191 °C m.p. –21 °C			REACH; TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

9.8 Vinyl Compounds and Ethers

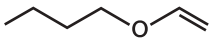
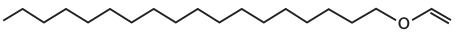
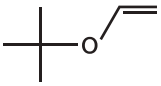
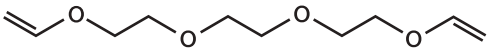
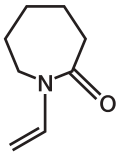
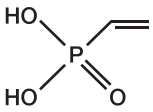
No.	Product [CAS Registry No.]	Formula
9.8.8	Dodecyl vinyl ether [765-14-0]	
9.8.9	Ethylvinylether stab. 0.01% KOH [109-92-2]	
9.8.10	Ethylvinylether stab. 0.1% DEA [109-92-2]	
9.8.11	Ethylvinylether stab. 0.1% KOH [109-92-2]	
9.8.12	Hydroxybutyl vinyl ether [17832-28-9]	
9.8.13	Koresin® pellets [28514-92-3] Remark 1	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	212.38 g/mol 0.8165 g/cm³ (20 °C) min. 99.0 90 °C (1 hPa) –12 °C	H315; H319; H412 Warning		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	72.11 g/mol 0.754 g/cm³ (20 °C) min. 99.0 36 °C –115 °C	H225; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	72.11 g/mol 0.759 g/cm³ (20 °C) min. 99.0 36 °C –115 °C	H225; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	72.11 g/mol 0.754 g/cm³ (20 °C) min. 99.0 36 °C –115 °C	H225; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	116.16 g/mol 0.94 g/cm³ (20 °C) min. 99.0 189.53 °C –33 °C	H302; H319; H412 Warning		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	not available 1.03 g/cm³ (20 °C) not available not available 135 – 150 °C			TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

9.8 Vinyl Compounds and Ethers

No.	Product [CAS Registry No.]	Formula
9.8.14	N-Butyl vinyl ether [111-34-2]	
9.8.15	Octadecyl vinyl ether [930-02-9]	
9.8.16	tert.-Butyl vinyl ether [926-02-3]	
9.8.17	Triethyleneglycol divinyl ether [765-12-8]	
9.8.18	Vinyl caprolactam HO-Tempo [2235-00-9] Remark 2	
9.8.19	Vinyl phosphonic acid [1746-03-8]	

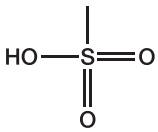
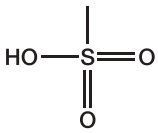
Remarks
1 Also available as powder
2 New non-toxic stabilizer

Physical Data	H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M 100.16 g/mol d 0.779 g/cm³ (20 °C) % (w/w) min. 99.0 b.p. 94 °C m.p. –113 °C	H225; H315; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M 296.54 g/mol d 0.812 g/cm³ (40 °C) % (w/w) 80.0 – 89.0 b.p. 179 – 192 °C (6.7 hPa) m.p. 24 – 28 °C	H412		REACH; TSCA; IECSC; ENCS/IS
M 100.16 g/mol d 0.762 g/cm³ (20 °C) % (w/w) min. 98.0 b.p. 76 °C m.p. not available	H225; H412 Danger		REACH; TSCA; IECSC; ENCS/IS
M 202.25 g/mol d 1.00 g/cm³ (20 °C) % (w/w) min. 98.5 b.p. 252.9 °C m.p. –12.6 °C			REACH; TSCA; IECSC; ENCS/IS
M 139.20 g/mol d 1.01 g/cm³ (40 °C) % (w/w) min. 98.5 b.p. 113 – 116 °C (13 hPa) m.p. 34 °C	H302; H319 Warning		REACH; TSCA; IECSC; ENCS/IS
M 108.03 g/mol d 1.37 g/cm³ (30 °C) % (w/w) 90.0 – 97.0 b.p. not applicable m.p. 36 °C	H314 Danger		REACH; TSCA; IECSC

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

9.9 Others

No.	Product [CAS Registry No.]	Formula
9.9.1	Methanesulfonic acid 100 [75-75-2]	
9.9.2	Methanesulfonic acid 70%	

Physical Data		H-Phrases EU-GHS Signal Word GHS	Pictogram	Chemical Inventory
M d % (w/w) b.p. m.p.	96.11 g/mol 1.48 g/cm³ (20 °C) min. 99.5 167 °C (10 hPa) 20 °C	H290; H314 Danger		REACH; TSCA; IECSC; ENCS/IS
M d % (w/w) b.p. m.p.	not available 1.35 g/cm³ (25 °C) 69.5 – 70.5 135 °C –54 °C	H290; H314 Danger		TSCA; IECSC; ENCS/IS

Explanation of symbols
M = Mol. Weight d = Density % (w/w) = Purity/Content b.p. = Boiling Point m.p. = Melting Point

If not specified, b.p. and m.p. measured at 1013 hPa.

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101-83-7	Dicyclohexylamine	38	4.1.5
102-69-2	Tripropylamine	44	4.1.28
102-71-6	Triethanolamine pure	74	5.1.5
102-71-6	Triethanolamine S	74	5.1.6
102-71-6	Triethanolamine T 85	76	5.1.7
102-79-4	Butyldiethanolamine	80	5.3.2
102-81-8	Dibutylethanolamine	80	5.3.4
102-82-9	Tributylamine	44	4.1.23
103-44-6	2-Ethylhexyl vinyl ether	156	9.8.3
103-76-4	Hydoxyethylpiperazine	84	5.4.5
103-76-4	Hydroxyethylpiperazine	116	7.7.1
104-75-6	2-Ethylhexylamine	38	4.1.1
104-78-9	3-(Diethylamino)propylamine	48	4.2.6
105-59-9	Methyldiethanolamine	82	5.3.8
105-83-9	N,N-Bis-(3-aminopropyl)methylamine	54	4.3.6
106-20-7	Di-(2-ethylhexyl)amine	38	4.1.3
107-07-3	Ethylene chlorohydrine	10	1.2.6
107-10-8	Propylamine	42	4.1.21
107-15-3	Ethylenediamine	50	4.2.12
107-19-7	Propargyl alcohol highly conc.	20	2.1.6
107-22-2	Glyoxal 40%	34	3.2.6
107-31-3	Methyl formate pure	92	6.2.4
108-01-0	N,N-Dimethylethanolamine S	82	5.3.10
108-01-0	Lupragen® N 101 – Dimethylethanolamine	62	4.5.2
108-01-0	Lupragen® N 101 – Dimethylethanolamine	80	5.3.7
108-12-3	Isovaleroyl chloride	8	1.1.8
108-16-7	N,N-Dimethylisopropanolamine	82	5.3.11
108-32-7	Propylene carbonate S®	94	7.1.5
109-01-3	N-Methylpiperazine	116	7.7.3
109-02-4	Lupragen® N 105 – N-Methylmorpholine	62	4.5.3
109-02-4	Lupragen® N 105 – N-Methylmorpholine	110	7.4.3
109-55-7	3-(Dimethylamino)propylamine	48	4.2.7
109-61-5	Propyl chloroformate	16	1.4.9
109-73-9	Butylamine	38	4.1.2
109-76-2	1,3-Diaminopropane	48	4.2.2
109-83-1	N-Methylethanolamine	82	5.3.12
109-85-3	2-Methoxyethylamine	58	4.4.1
109-89-7	Diethylamine	38	4.1.6
109-92-2	Ethylvinylether stab. 0.01% KOH	158	9.8.9
109-92-2	Ethylvinylether stab. 0.1% DEA	158	9.8.10
109-92-2	Ethylvinylether stab. 0.1% KOH	158	9.8.11
109-99-9	THF Pharma non-stab.	94	7.1.6
109-99-9	THF Pharma stab.	94	7.1.7
109-99-9	THF Pharma stab. super dry	96	7.1.8

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123-15-9	2-Methylpentanal	34	3.2.2
123-75-1	Pyrrolidine pure	120	7.9.2
123-91-1	1,4-Dioxane	112	7.5.2
123-91-1	1,4-Dioxane stab.	112	7.5.3
123-91-1	1,4-Dioxan stab. ultra pure	112	7.5.1
124-40-3	Dimethylamine anhydrous	38	4.1.7
126-30-7	Neol® Neopentylglycol flakes	24	2.2.10
126-30-7	Neol® Neopentylglycol pure liquid	26	2.2.11
126-30-7	Neol® Neopentylglycol sol. 90% fix calc. 100%	26	2.2.12
127-19-5	N,N-Dimethylacetamide	142	9.1.4
141-43-5	Monoethanolamine pure	74	5.1.4
142-84-7	Dipropylamine	40	4.1.10
149-57-5	2-Ethylhexanoic acid	88	6.1.1
156-87-6	3-Amino-1-propanol	84	5.4.2
280-57-9	Lupragen® N 201 – Triethylenediamine in dipropyleneglycol	62	4.5.6
280-57-9	Lupragen® N 201 – Triethylenediamine in dipropyleneglycol	112	7.5.4
280-57-9	Lupragen® N 203 – Triethylenediamine in monoethyleneglycol	62	4.5.7
280-57-9	Lupragen® N 203 – Triethylenediamine in monoethyleneglycol	112	7.5.5
288-32-4	Imidazole	100	7.2.8
373-44-4	Octamethylenediamine	52	4.2.17
501-53-1	Benzyl chloroformate	14	1.4.3
502-44-3	epsilon-Caprolactone	104	7.3.2
513-85-9	Butane-2,3-diol	22	2.2.5
541-41-3	Ethyl chloroformate	14	1.4.5
542-28-9	delta-Valerolactone	106	7.3.8
558-30-5	Isobutyleneoxide	114	7.6.1
593-81-7	Trimethylaminehydrochloride sol. 70%	44	4.1.27
598-56-1	Dimethylethylamine	40	4.1.8
603-35-0	Triphenyl phosphine molten	152	9.6.1
603-35-0	Triphenyl phosphine pellets	152	9.6.2
611-71-2	ChiPros® (R)-Mandelic acid	140	8.3.3
616-45-5	2-Pyrrolidone dist.	104	7.3.1
616-47-7	Lupragen® NMI – N-Methylimidazole	102	7.2.12
616-47-7	1-Methylimidazole	98	7.2.2
622-40-2	4-(2-Hydroxyethyl)morpholine	84	5.4.3
622-40-2	4-(2-Hydroxyethyl)morpholine	110	7.4.1
625-36-5	3-Chlorpropionyl chloride	6	1.1.2
626-67-5	N-Methylpiperidine 80% calc. 100%	118	7.8.2
629-11-8	HDO® 1,6-Hexanediol flakes	24	2.2.6
629-11-8	HDO® 1,6-Hexanediol molten	24	2.2.7
629-40-3	Suberonitrile	150	9.5.3
638-29-9	Valeroyl chloride	8	1.1.13

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CAS Registry No.	Product	Page	Index
693-98-1	2-Methylimidazole flakes	100	7.2.6
693-98-1	2-Methylimidazole pure	100	7.2.7
760-67-8	2-Ethylhexanoyl chloride	6	1.1.1
764-99-8	Diethyleneglycol divinyl ether	156	9.8.7
765-12-8	Triethyleneglycol divinyl ether	160	9.8.17
765-14-0	Dodecyl vinyl ether	158	9.8.8
766-09-6	N-Ethylpiperidine	118	7.8.1
830-13-7	Cyclododecanone	36	3.3.1
830-13-7	Cyclododecanone F	36	3.3.2
872-36-6	Vinylene carbonate E	96	7.1.9
872-50-4	N-Methylpyrrolidone dist.	106	7.3.5
872-50-4	N-Methylpyrrolidone Life Science	106	7.3.9
926-02-3	tert.-Butyl vinyl ether	160	9.8.16
926-63-6	Dimethylpropylamine	40	4.1.9
929-06-6	2-(2-Aminoethoxy)ethanol	84	5.4.1
930-02-9	Octadecyl vinyl ether	160	9.8.15
931-36-2	2-Ethyl-4-methylimidazole	98	7.2.3
931-36-2	2-Ethyl-4-methylimidazole S	98	7.2.4
996-35-0	N,N-Dimethylisopropylamine	42	4.1.16
1013-88-3	Benzophenonimine techn.	146	9.3.1
1072-62-4	2-Ethylimidazole ultra pure	98	7.2.5
1072-63-5	1-Vinylimidazole	156	9.8.2
1072-68-0	1,4-Dimethylpyrazole	98	7.2.1
1115-20-4	Hydroxypivalic acid neopentylglycolester flakes	24	2.2.8
1115-20-4	Hydroxypivalic acid neopentylglycolester molten	24	2.2.9
1575-61-7	5-Chlorovaleryl chloride	6	1.1.4
1604-35-9	3,7,11-Trimethyldodecyn-3-ol	18	2.1.4
1696-20-4	N-Acetylmorpholine	110	7.4.6
1696-20-4	N-Acetylmorpholine	142	9.1.5
1704-62-7	Lupragen® N 107 – Dimethylaminoethoxyethanol	62	4.5.5
1704-62-7	Lupragen® N 107 – Dimethylaminoethoxyethanol	84	5.4.6
1739-84-0	Lupragen® DMI – 1,2-Dimethylimidazole	102	7.2.11
1746-03-8	Vinyl phosphonic acid	160	9.8.19
1761-71-3	4,4'-Diaminodicyclohexylmethane	50	4.2.9
1860-26-0	Tris-(2-ethylhexyl)amine	46	4.1.29
2028-63-9	3-Butyne-2-ol 55% sol.	18	2.1.5
2163-00-0	1,6-Dichlorohexane	10	1.2.1
2182-55-0	Cyclohexyl vinyl ether	156	9.8.6
2212-32-0	Lupragen® N 400 – Trimethylaminoethylethanolamine	64	4.5.10
2212-32-0	Lupragen® N 400 – Trimethylaminoethylethanolamine	84	5.4.7
2235-00-9	Vinyl caprolactam HO-Tempo	160	9.8.18
2508-29-4	5-Amino-1-pentanol sol. 50%	84	5.4.4
2528-61-2	Heptane acid chloride	6	1.1.5
2627-86-3	ChiPros® (S)-1-Phenylethylamine	136	8.2.41

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2687-94-7	N-Octyl-2-pyrrolidone dist.	106	7.3.7
2855-13-2	Isophorone diamine	50	4.2.13
3030-47-5	Lupragen® N 301 – Pentamethyldietylenetriamine	54	4.3.5
3030-47-5	Lupragen® N 301 – Pentamethyldietylenetriamine	64	4.5.9
3031-66-1	3-Hexyne-2,5-diol	22	2.2.4
3033-62-3	Lupragen® N 205 – Bis(2-dimethylaminoethyl)ether	58	4.4.6
3033-62-3	Lupragen® N 205 – Bis(2-dimethylaminoethyl)ether	64	4.5.8
3077-12-1	Diethanol-para-toluidine	66	4.6.7
3082-62-0	ChiPros® (S)-1-(2-Naphthyl)ethylamine	134	8.2.30
3082-64-2	ChiPros® (R)-1-Phenylpropylamine	130	8.2.18
3179-63-3	3-Dimethylaminopropane-1-ol	80	5.3.1
3282-30-2	Pivaloyl chloride	8	1.1.11
3302-10-1	Isononanoic acid C	88	6.1.6
3302-10-1	i-Nonanoic acid	88	6.1.5
3312-60-5	3-(Cyclohexylamino)propylamine	48	4.2.5
3445-11-2	N-(2-Hydroxyethyl)-2-pyrrolidone	104	7.3.3
3445-11-2	N-(2-Hydroxyethyl)-2-pyrrolidone 95%	104	7.3.4
3699-54-5	N-(2-Hydroxyethyl)ethylene urea	154	9.7.2
3789-59-1	ChiPros® (S)-1-Phenylpropylamine	136	8.2.42
3886-69-9	ChiPros® (R)-1-Phenylethylamine	130	8.2.17
3886-70-2	ChiPros® (R)-1-(1-Naphthyl)ethylamine	126	8.2.5
3891-33-6	Butanediol divinyl ether	156	9.8.5
3906-16-9	ChiPros® (R)-1-(2-Naphthyl)ethylamine	126	8.2.6
4187-38-6	ChiPros® (R)-1-(4-Methylphenyl)ethylamine	128	8.2.12
4187-56-8	ChiPros® (S)-1-(4-Chlorphenyl)ethyl-amine/Clophas	134	8.2.32
4221-99-2	ChiPros® (S)-Butan-2-ol	124	8.1.4
4246-51-9	4,7,10-Trioxatridecane-1,13-diamine	58	4.4.3
4316-73-8	Sarcosine sodium 40% sol.	90	6.1.8
4394-85-8	N-Formylmorpholine	110	7.4.7
4394-85-8	N-Formylmorpholine	142	9.1.6
4402-30-6	Methyldiisopropanolamine	82	5.3.9
4635-59-0	4-Chlorobutyryl chloride	6	1.1.3
4637-24-5	1,1-Dimethoxy-N,N-dimethyl methanamine	32	3.1.1
4747-21-1	N-Methyl-N-isopropylamine	42	4.1.19
4904-61-4	Cyclododecatriene	144	9.2.1
5036-48-6	N-(3-Aminopropyl)imidazole	102	7.2.13
5036-48-6	Lupragen® API – N-(3-Aminopropyl)imidazole	100	7.2.10
6240-96-6	ChiPros® (R)-1-Cyclopropylethylamine	130	8.2.16
5308-25-8	N-Ethylpiperazine	116	7.7.2
5332-73-0	3-Methoxypropylamine	58	4.4.2
5343-92-0	1,2-Pentanediol	22	2.2.1
5395-01-7	2-Hydroxyethyl carbamate	92	6.2.1
5913-13-3	ChiPros® (R)-1-Cyclohexylethylamine	130	8.2.15
6092-54-2	n-Hexyl chloroformate	16	1.4.8

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34701-33-2	ChiPros® (R)-3-Methyl-2-butylamine	132	8.2.22
36215-07-3	1-Chloro-3-methoxypropane (standard)	10	1.2.2
36215-07-3	1-Chloro-3-methoxypropane >99%	10	1.2.3
36215-07-3	1-Chloro-3-methoxypropane Pharma Premium	10	1.2.4
36727-29-4	Isononanoyl chloride	6	1.1.7
38235-77-7	ChiPros® (R)-N-Benzyl-1-phenylethylamine	132	8.2.24
38668-48-3	Diisopropanol-p-toluidine	68	4.6.7
39423-51-3	Polyetheramine T 403	60	4.4.10
40292-82-8	Neodecanoyl chloride	8	1.1.9
41851-59-6	ChiPros® (S)-1-(4-Methoxyphenyl)ethylamine	136	8.2.35
42125-46-2	4-tert.-Butylcyclohexyl chloroformate	14	1.4.2
50675-18-8	4-Formyltetrahydropyran	122	7.10.1
52950-18-2	ChiPros® (R)-2-Chloromandelic acid	140	8.3.1
56200-72-1	Bis[(S)-1-Phenylethyl]-amine	138	8.2.42
56210-72-1	ChiPros® Bis[(S)-1-Phenylethyl]-amine	138	8.2.47
56677-60-2	Myristyl chloroformate	14	1.4.7
60113-43-1	3-Formylpinan raw	34	3.2.3
61341-86-4	ChiPros® (S)-1-Aminoindane	136	8.2.37
61477-40-5	ChiPros® (R)-3-Aminobutan-1-ol	132	8.2.21
64852-22-8	Polyetheramine T 5000	60	4.4.11
66228-31-7	ChiPros® (R)-3,3-Dimethyl-2-amino-butane	132	8.2.23
66399-30-2	ChiPros® (S)-1-(4-Fluorphenyl)ethylamine	134	8.2.34
68327-11-7	ChiPros® (1R,2R)-trans-2-Amino-cyclopentanol hydrochloride	126	8.2.1
68909-77-3	AMIX M	72	4.7.3
68909-77-3	AMIX M	110	7.4.2
68910-05-4	AMIX 1000	54	4.3.1
68910-05-4	AMIX 1000	72	4.7.1
68953-70-8	AMIX TE	72	4.7.4
68953-70-8	AMIX TE	74	5.1.1
70095-40-8	ChiPros® (R)-2-Hexylamine	132	8.2.20
70492-67-0	ChiPros® (S)-2-Hexylamine	138	8.2.43
82796-69-8	ChiPros® (S)-1-(3-Methoxyphenyl)ethylamine	134	8.2.31
86089-17-0	Tridecylamine mixture of isomers	44	4.1.24
88196-70-7	ChiPros® (R)-1-(3-Methoxyphenyl)ethylamine	126	8.2.7
92731-41-4	AMIX A	54	4.3.2
92731-41-4	AMIX A	72	4.7.2
93940-97-7	Baxxodur® PC 136	50	4.2.11
93940-97-7	Baxxodur® PC 136	150	9.5.1
101012-97-9	Ditridecylamine mixture of isomers	40	4.1.11
110238-91-0	Tetrahydropyran-4-carboxylic acid methylester	122	7.10.2
133492-69-0	ChiPros® (S)-1-(2,4-Chlorphenyl)ethylamine	134	8.2.33
133773-29-2	ChiPros® (R)-1-(2,4-Chlorphenyl)ethylamine	128	8.2.9
171753-74-5	ChiPros® (2R,6R)-Dimethylmorpholine	132	8.2.26
181657-57-7	ChiPros® (1R,2R)-1-Amino-2-Benzyloxycyclopentane	126	8.2.3

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No CAS Registry No.			
	Baxxodur® ECX 210	50	4.2.10
	Carbonate Mix 50	94	7.1.2
	Carbonate Mix 60	94	7.1.3
	Diethanol-para-toluidine in MMA, 50 : 50	68	4.6.8
	Ethanolamine mixtures (anhydrous)	74	5.1.3
	Imidazole aqueous solution 50%	100	7.2.9
	Methanesulfonic acid 70%	162	9.9.2

GHS Assignment Scheme – How to Get Easily from H to P

Hazard Statement		Hazard Pictogram
Code	Wording	
200	Unstable explosives.	 GHS01
201	Explosive; mass explosion hazard.	
202	Explosive, severe projection hazard.	
203	Explosive; fire, blast or projection hazard.	
204	Fire or projection hazard.	
205	May mass explode in fire.	–
220	Extremely flammable gas.	 GHS02
221	Flammable gas.	–
222	Extremely flammable aerosol.	 GHS02
223	Flammable aerosol.	
224	Extremely flammable liquid and vapor.	
225	Highly flammable liquid and vapor.	
226	Flammable liquid and vapor.	
228	Flammable solid.	
240[1]	Heating may cause an explosion.	 GHS01
240[2]	Heating may cause an explosion.	
241[1]	Heating may cause a fire or explosion.	 GHS01 GHS02
241[2]	Heating may cause a fire or explosion.	
242[1]	Heating may cause a fire.	 GHS02
242[2]	Heating may cause a fire.	
250[3]	Catches fire spontaneously if exposed to air.	
250[4]	Catches fire spontaneously if exposed to air.	
251	Self-heating: may catch fire.	
252	Self-heating in large quantities; may catch fire.	
260	In contact with water releases flammable gases which may ignite spontaneously.	
261[5]	In contact with water releases flammable gases.	
261[6]	In contact with water releases flammable gases.	
270	May cause or intensify fire; oxidiser.	 GHS03
271	May cause fire or explosion; strong oxidiser.	
272	May intensify fire; oxidiser.	
280	Contains gas under pressure; may explode if heated.	 GHS04
281	Contains refrigerated gas; may cause cryogenic burns or injury.	
290	May be corrosive to metals.	 GHS05

[1] If self-reactive. [2] If organic peroxide. [3] If liquid. [4] If solid. [5] If hazard category 2. [6] If hazard category 3. [7] The additional codes D, F, d and f are not described here.

The general precautionary statements P101 “If medical advice is needed, have product container or label at hand”, P102 “Keep out of reach of children” and P103 “Read label before use” are only assigned to consumer products.

Code of Precautionary Statement			
Prevention	**Response**	**Storage**	**Disposal**
201, ((202)), 281	372, (373), 380	401	501
210, 230, ((240)), 250, 280	370+380, 372, (373)	401	(501)
210, 230, ((240)), 250, 280	370+380, 372, (373)	401	(501)
210, 230, ((240)), 250, 280	370+380, 372, (373)	401	(501)
210, ((240)), 250, 280	370+380, 372, (373)	401	(501)
210, 230, ((240)), 250, 280	370+380, 372, (373)	401	(501)
210	377, (381)	403	–
210	377, (381)	403	–
210, 211, 251	–	410+412	–
210, 211, 251	–	410+412	–
210, 233, ((240)), ((241)), ((242)), ((243)), ((280))	((303+361+353)), 370+378	403+235	501
210, (233), ((240)), ((241)), ((242)), ((243)), ((280))	((303+361+353)), 370+378	403+235	501
210, ((233)), ((240)), ((241)), ((242)), ((243)), ((280))	((303+361+353)), 370+378	403+235	501
210, ((240)), ((241)), ((280))	370+378	–	–
210, (220), 234, 280	(((370+378))), 70+380+(((375)))	403+235, 411, (420)	501
210, (220), 234, 280	–	411+235, 410, (420)	501
210, (220), 234, 280	370+378, 370+380+375	403+235, 411, (420)	501
210, (220), 234, 280	–	411+235, 410, (420)	501
210, (220), 234, 280	370+378	403+235, 411, (420)	501
210, (220), 234, 280	–	411+235, 410, (420)	501
210, ((222)), 280	302+334, 370+378	(422)	–
210, ((222)), 280	335+334, 370+378	(422)	–
235+410, ((280))	–	407, 413, (420)	–
235+410, ((280))	–	407, 413, (420)	–
((223)), 231+232, (280)	335+334, 370+378	(402+404)	501
((223)), 231+232, (280)	335+334, 370+378	(402+404)	501
231+232, (280)	370+378	(402+404)	501
220, 244	((370+376))	403	–
210, ((220)), 221, 280, ((283))	(306+360), 371+380+375, 370+378	–	501
210, ((220)), 221, (280)	370+378	–	501
–	–	((410+403))	–
282	336, (315)	((403))	–
(234)	(390)	((406))	–

P-Statement code without brackets = highly recommended
P-Statement code with single brackets (…) = recommended
P-Statement code with double brackets ((…)) = optional
P-Statement code with triple brackets (((…))) = not to be used

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Hazard Statement		Hazard Pictogram
Code	Wording	
300	Fatal if swallowed.	 GHS06
301	Toxic if swallowed.	
302	Harmful if swallowed.	 GHS07
304	May be fatal if swallowed and enters airways.	 GHS08
310	Fatal in contact with skin.	 GHS06
311	Toxic in contact with skin.	
312	Harmful in contact with skin.	 GHS07
314	Causes severe skin burns and eye damage.	 GHS05
315	Causes skin irritation.	 GHS07
317	May cause an allergic skin reaction.	
318	Causes serious eye damage.	 GHS05
319	Causes serious eye irritation.	 GHS07
330	Fatal if inhaled.	 GHS06
331	Toxic if inhaled.	
332	Harmful if inhaled.	 GHS07
334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	 GHS08
335	May cause respiratory irritation.	 GHS07
336	May cause drowsiness or dizziness.	
340	May cause genetic defects.	 GHS08
341	Suspected of causing genetic defects.	
350	May cause cancer.	
351	Suspected of causing cancer.	
360[7)]	May damage fertility or the unborn child.	
361[7)]	Suspected of damaging fertility or the unborn child.	
362	May cause harm to breast-fed children.	–

[1)] If self-reactive. [2)] If organic peroxide. [3)] If liquid. [4)] If solid. [5)] If hazard category 2. [6)] If hazard category 3. [7)] The additional codes D, F, d and f are not described here.

The general precautionary statements P101 “If medical advice is needed, have product container or label at hand”, P102 “Keep out of reach of children” and P103 “Read label before use” are only assigned to consumer products.

Code of Precautionary Statement			
Prevention	**Response**	**Storage**	**Disposal**
264, 270	301+310, 321, 330	405	501
264, (270)	301+310, 321, (330)	405	501
(264), (270)	((301+312)), ((330))	–	501
–	301+310, 331	405	501
262, 264, 270, 280	(302+350), 310, 322, 361, (363)	405	501
280	(302+352), (312), 322, (361), ((363))	405	501
(280)	((302+352)), (312), 322, ((363))	–	501
260, 264, 280	301+330+331, 303+361+353, (363), ((304+340)), 310, 321, 305+351+338	405	501
((264)), (280)	((302+352)), 321, ((332+313)), (362))	–	–
(261), (272), 280	(302+352), (333+313), 321, (363)	–	501
280	305+351+338, 310	–	–
((264)), (280)	(305+351+338), (337+313)	–	–
260, 271, (284)	304+340, 310, 320	403+233, 405	501
(261), 271	((304+340)), (311), 321	403+233, 405	501
(261), 271	((304+340)), (312)	–	–
261, 285	304+341, 342+311	–	501
(261), 271	((304+340)), (312)	(403+233), 405	501
(261), 271	((304+340)), (312)	(403+233), 405	501
201, ((202)), 281	308+313	405	501
(201), ((202)), 281	(308+313)	405	501
201, (202), 281	308+313	405	501
(201), ((202)), 281	(308+313)	405	501
201, ((202), 281	308+313	405	501
201, ((202)), 281	(308+313)	405	501
201, 260, 263, ((264)), (270)	(308+313)	–	–

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Hazard Statement		Hazard Pictogram
Code	Wording	
370	Causes damage to organs.	 GHS08
371	May cause damage to organs.	
372	Causes damage to organs trough prolonged or repeated exposure.	
373	May cause damage to organs trough prolonged or repeated exposure.	
400	Very toxic to aquatic life.	 GHS09
410	Very toxic to aquatic life with long lasting effects.	
411	Toxic to aquatic life with long lasting effects.	
412	Harmful to aquatic life with long lasting effects.	–
413	May cause long lasting harmful effects to aquatic life.	
420	Harms public health and the environment by destroying ozone in the upper atmosphere.	 GHS07

[1] If self-reactive. [2] If organic peroxide. [3] If liquid. [4] If solid. [5] If hazard category 2. [6] If hazard category 3. [7] The additional codes D, F, d and f are not described here.

The general precautionary statements P101 “If medical advice is needed, have product container or label at hand”, P102 “Keep out of reach of children” and P103 “Read label before use” are only assigned to consumer products.

No.	Prevention
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P211	Do not spray on an open flame or other ignition source.
P220	Keep/Store away from clothing/…/combustible materials.
P221	Take any precaution to avoid mixing with combustibles…
P222	Do not allow contact with air.
P223	Keep away from any possible contact with water, because of violent reaction and possible flash fire.
P230	Keep wetted with…
P231	Handle under inert gas.
P232	Protect from moisture.
P233	Keep container tightly closed.
P234	Keep only in original container.
P235	Keep cool.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/…/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P244	Keep reduction valves free from grease and oil.
P250	Do not subject to grinding/shock/…/friction.
P251	Pressurized container: Do not pierce or burn, even after use.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P262	Do not get in eyes, on skin, or on clothing.
P263	Avoid contact during pregnancy/while nursing.

Code of Precautionary Statement			
Prevention	**Response**	**Storage**	**Disposal**
260, ((264)), (270)	307+311, 321	405	501
260, ((264)), (270)	(309+311)	405	501
260, ((264)), (270)	(314)	–	501
260	(314)	–	501
(273)	(391)	–	501
(273)	(391)	–	501
(273)	(391)	–	501
(273)	–	–	501
(273)	–	–	501
–	–	–	502

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P264	Wash … thoroughly after handling.
P270	Do no eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P282	Wear cold insulating gloves/face shield/eye protection.
P283	Wear fire/flame resistant/retardant clothing.
P284	Wear respiratory protection.
P285	In case of inadequate ventilation wear respiratory protection.
P231+232	Handle under inert gas. Protect from moisture.
P235+410	Keep cool. Protect from sunlight.

No.	Response
P301	IF SWALLOWED:
P302	IF ON SKIN:
P303	IF ON SKIN (or hair):
P304	IF INHALED:
P305	IF IN EYES:
P306	IF ON CLOTHING:
P307	IF exposed:
P308	IF exposed or concerned:
P309	IF exposed or if you feel unwell:
P310	Immediately call a POISON CENTER or doctor/physician.

P311	Call a POISON CENTER or doctor/physician.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P313	Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P315	Get immediate medical advice/attention.
P320	Specific treatment is urgent (see … on this label).
P321	Specific treatment (see … on this label).
P322	Specific measures (see … on this label).
P330	Rinse mouth.
P331	Do NOT induce vomiting.
P332	If skin irritation occurs:
P333	If skin irritation or rash occurs:
P334	Immerse in cool water/wrap in wet bandages.
P335	Brush off loose particles from skin.
P336	Thaw frosted parts with lukewarm water. Do no rub affected area.
P337	If eye irritation persists:
P338	Remove contact lenses, if present and easy to do. Continue rinsing.
P340	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P341	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342	If experiencing respiratory symptoms:
P350	Gently wash with plenty of soap and water.
P351	Rinse cautiously with water for several minutes.
P352	Wash with plenty of soap and water.
P353	Rinse skin with water/shower.
P360	Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P361	Remove/Take off immediately all contaminated clothing.
P362	Take off contaminated clothing and wash before reuse.
P363	Wash contaminated clothing before reuse.
P370	In case of fire:
P371	In case of major fire and large quantities:
P372	Explosion risk in case of fire.
P373	DO NOT fight fire when fire reaches explosives.
P374	Fight fire with normal precautions from a reasonable distance.
P375	Fight fire remotely due to the risk of explosion.
P376	Stop leak if safe to do so.
P377	Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P378	Use … for extinction.
P380	Evacuate area.
P381	Eliminate all ignition sources if safe to do so.
P390	Absorb spillage to prevent material damage.
P391	Collect spillage.
P301+310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301+312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301+ 330+331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+334	IF ON SKIN: Immerse in cool water/wrap in wet bandages.

P302+350	IF ON SKIN: Gently wash with plenty of soap and water.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P303+ 361+353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P304+341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P307+311	IF exposed: Call a POISON CENTER or doctor/physician.
P308+313	IF exposed or concerned: Get medical advice/attention.
P309+311	IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
P332+313	If skin irritation occurs: Get medical advice/attention.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P335+334	Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.
P337+313	If eye irritation persists: Get medical advice/attention.
P342+311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P370+376	In case of fire: Stop leak if safe to do so.
P370+378	In case of fire: Use … for extinction.
P370+380	In case of fire: Evacuate area.
P370+ 380+375	In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
P371+ 380+375	In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

No.	Storage
P401	Store …
P402	Store in a dry place.
P403	Store in a well-ventilated place.
P404	Store in a closed container.
P405	Store locked up.
P406	Store in corrosive resistant/… container with a resistant inner liner.
P407	Maintain air gap between stacks/pallets.
P410	Protect from sunlight.
P411	Store at temperatures not exceeding … °C/… °F.
P412	Do not expose to temperatures exceeding 50 °C/122 °F.
P413	Store bulk masses greater than … kg/… lbs at temperatures not exceeding … °C/… °F.
P420	Store away from other materials.
P422	Store contents under …
P402+404	Store in a dry place. Store in a closed container.
P403+233	Store in a well-ventilated place. Keep container tightly closed.
P403+235	Store in a well-ventilated place. Keep cool.
P410+403	Protect from sunlight. Store in a well-ventilated place.
P410+412	Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122 °F.
P411+235	Store at temperatures not exceeding … °C/… °F. Keep cool.

No.	Disposal
P501	Dispose of contents/container to …
P502	Refer to manufacturer/supplier for information on recovery/recycling.

Overview GHS Pictogram


GHS01: Explosives


GHS02: Flammable gases / aerosols / liquids / solids


GHS03: Oxidizing gases


GHS04: Gases under pressure


GHS05: Corrosion


GHS06: Skull and crossbones – toxic


GHS07: Health hazard – warning


GHS08: Health hazard – danger


GHS09: Environmental risk

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