SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name Hysol SL 45 XBB

Product code 469239-FR01

SDS no. 469239

Product type Liquid.

Use of the substance/ mixture Metalworking fluid - soluble.
For specific application advice see appropriate Technical Data Sheet or consult our company representative.

1.3 Details of the supplier of the safety data sheet

Supplier

ABC Maziva d.o.o.
Bulevar Milutina Milankovića 23
11000 Beograd
Serbia

+386 (0) 15136242

E-mail address MSDSadvice@bp.com

1.4 Emergency telephone number

EMERGENCY TELEPHONE NUMBER Carechem: +44 (0) 1235 239 670 (24/7)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Irrit. 2, H315
Eye Irrit. 2, H319

Additional information CLP: Not classified as hazardous when diluted below 20%

See Section 16 for the full text of the H statements declared above.

See sections 11 and 12 for more detailed information on health effects and symptoms and environmental hazards.

2.2 Label elements

Hazard pictograms

Signal word Warning

Hazard statements
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.

Precautionary statements

Prevention
P280 - Wear protective gloves. Wear eye or face protection.
P264 - Wash hands thoroughly after handling.

Response
P362 + P364 - Take off contaminated clothing and wash it before reuse.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical attention.

Storage Not applicable.

Disposal Not applicable.

SECTION 2: Hazards identification

Hazardous ingredients Not applicable.

Supplemental label elements Not applicable.

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings Not applicable.

Tactile warning of danger Not applicable.

2.3 Other hazards

Results of PBT and vPvB assessment Product does not meet the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII.

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification Defatting to the skin.
This product contains complex ionic mixtures within the fluid matrix which are an intrinsic part of the product and cannot be separated from the fluid matrix. Toxicology testing has shown the ionic-mixture containing products exhibit skin and eye irritation properties that are notably attenuated when compared to the individual acid and base components.

Product does not contain a substance above legal limits including the list established in accordance with REACH article 59(1) for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in EU 2017/2100 or EU 2018/605.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Product definition Mixture

Highly refined base oil (IP 346 DMSO extract <3%), emulsifiers and additives.

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Alcohols, C16-18 and C18-unsatd., ethoxylated	EC: 500-236-9 CAS: 68920-66-1	≤10	Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 3, H412	M [Acute] = 1	[1]
carbonic acid, compound with 2-aminoethanol (1:2)	REACH #: 01-2119976326-28 EC: 244-600-2 CAS: 21829-52-7	≤5	Acute Tox. 4, H302	ATE [Oral] = 500 mg/kg	[1]
4-Octanol, 3-amino-	REACH #: 01-2119387550-36 CAS: 1001354-72-8	≤5	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318	ATE [Oral] = 500 mg/kg	[1]
3,5,5-trimethylhexanoic acid	REACH #: 01-2119517580-45 EC: 221-975-0 CAS: 3302-10-1	≤3	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318	ATE [Oral] = 500 mg/kg	[1]
Benzotriazole	REACH #: 01-2119979079-20 EC: 202-394-1 CAS: 95-14-7	≤3	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	ATE [Oral] = 500 mg/kg	[1]
2-aminobutan-1-ol	REACH #: 01-2119492338-28 EC: 202-488-2 CAS: 96-20-8	≤3	Acute Tox. 4, H302 Skin Corr. 1, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 3, H412	ATE [Oral] = 500 mg/kg M [Acute] = 1	[1]
2-aminoethanol	REACH #:	≤2.3	Acute Tox. 4, H302	ATE [Oral] = 500 mg/	[1] [2]

SECTION 3: Composition/information on ingredients

	01-2119486455-28 EC: 205-483-3 CAS: 141-43-5 Index: 603-030-00-8		Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Chronic 3, H412	kg ATE [Dermal] = 1100 mg/kg ATE [Inhalation (vapours)] = 11 mg/l STOT SE 3, H335: C ≥ 5%	
Poly(oxy-1,2-ethanediyl), α-(carboxymethyl)-ω-[(9Z)-9-octadecen-1-yloxy]-neodecanoic acid	CAS: 57635-48-0	≤3	Eye Dam. 1, H318	-	[1]
	REACH #: 01-2119449554-33 EC: 248-093-9 CAS: 26896-20-8	≤1.5	Acute Tox. 4, H302	ATE [Oral] = 500 mg/kg	[1]

See Section 16 for the full text of the H statements declared above.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.

Skin contact Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention.

Inhalation If inhaled, remove to fresh air. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Get medical attention if symptoms occur.

Ingestion Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Wash out mouth with water if person is conscious. Get medical attention if symptoms occur.

Protection of first-aiders No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

Potential acute health effects

Inhalation Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion Irritating to mouth, throat and stomach.

Skin contact Causes skin irritation. Defatting to the skin.

Eye contact Causes serious eye irritation.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Inhalation Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.

Ingestion Ingestion of large quantities may cause nausea and diarrhoea.

Skin contact Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.

Eye contact Potential risk of transient stinging or redness if accidental eye contact occurs.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician Treatment should in general be symptomatic and directed to relieving any effects.
In case of inhalation of decomposition products in a fire, symptoms may be delayed.
The exposed person may need to be kept under medical surveillance for 48 hours.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

In case of fire, use water fog, alcohol resistant foam, dry chemical or carbon dioxide extinguisher or spray.

Unsuitable extinguishing media

Do not use water jet. The use of a water jet may cause the fire to spread by splashing the burning product.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture

In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products

Combustion products may include the following:
carbon oxides (CO, CO_2) (carbon monoxide, carbon dioxide)
nitrogen oxides (NO, NO_2 etc.)

5.3 Advice for firefighters

Special precautions for fire-fighters

No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Contact emergency personnel. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Floors may be slippery; use care to avoid falling. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment.

For emergency responders

Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Small spill

Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Contaminated absorbent material may pose the same hazard as the spilt product. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections

See Section 1 for emergency contact information.
See Section 5 for firefighting measures.
See Section 8 for information on appropriate personal protective equipment.
See Section 12 for environmental precautions.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

SECTION 7: Handling and storage

Protective measures

Put on appropriate personal protective equipment. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid contact of spilt material and runoff with soil and surface waterways. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Do not reuse container. Empty containers retain product residue and can be hazardous. Avoid prolonged or repeated contact with skin. During metal working, solid particles from workpieces or tools will contaminate the fluid and may cause abrasions of the skin. Where such abrasions result in a penetration of the skin, first aid treatment should be applied as soon as reasonably possible. The presence of certain metals in the workpiece or tool, such as chromium, cobalt and nickel, can contaminate the metalworking fluid and as a result may induce allergic skin reactions. Evaporation of water from soluble cutting fluids during use may lead to an increase in concentration which may result in the development of skin conditions due to irritation and defatting. It is important to monitor fluid strength on a regular basis with a refractometer and maintain it at the recommended concentration. Lubricants from other sources and other contaminants should be minimised. Swarf and other debris should be removed.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Protect from freezing. Keep away from heat and direct sunlight. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store and use only in equipment/containers designed for use with this product. Do not store in unlabelled containers.

Not suitable

Prolonged exposure to elevated temperature

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

2-aminoethanol

EU OEL (Europe). Absorbed through skin.
TWA: 2.5 mg/m³ 8 hours. Issued/Revised: 2/2006
TWA: 1 ppm 8 hours. Issued/Revised: 2/2006
STEL: 7.6 mg/m³ 15 minutes. Issued/Revised: 2/2006
STEL: 3 ppm 15 minutes. Issued/Revised: 2/2006

Recommended monitoring procedures

Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Biological exposure indices

Product/ingredient name	Exposure indices

No exposure indices known.

Derived No Effect Level

Product/ingredient name	Type	Exposure		Value	Population	Effects
4-Octanol, 3-amino-	DNEL	Long term Inhalation	-	29 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	-	8.3 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	-	14.69 mg/m³	General population	Systemic
	DNEL	Long term Dermal	-	4.17 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	-	2.08 mg/kg bw/day	General population	Systemic
3,5,5-trimethylhexanoic acid	DNEL	Long term Inhalation	-	4.4 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	-	10 mg/m³	Workers	Local
	DNEL	Short term Inhalation	-	10 mg/m³	Workers	Local

SECTION 8: Exposure controls/personal protection

	DNEL	Long term Dermal	-	1.25 mg/kg bw/ day	Workers	Systemic
	DNEL	Long term Inhalation	-	1.1 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	-	5 mg/m³	General population	Local
	DNEL	Short term Inhalation	-	5 mg/m³	General population	Local
	DNEL	Long term Dermal	-	0.6 mg/kg bw/ day	General population	Systemic
	DNEL	Long term Oral	-	0.6 mg/kg bw/ day	General population	Systemic
Benzotriazole	DNEL	Long term Inhalation	-	4.2 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	-	0.24 mg/kg bw/ day	Workers	Systemic
	DNEL	Long term Inhalation	-	2.1 mg/m³	General population	Systemic
	DNEL	Long term Dermal	-	0.12 mg/kg bw/ day	General population	Systemic
	DNEL	Long term Oral	-	0.12 mg/kg bw/ day	General population	Systemic
2-aminobutan-1-ol	DNEL	Long term Inhalation	-	1.4 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	-	1.31 mg/kg bw/ day	Workers	Systemic
	DNEL	Long term Inhalation	-	0.34 mg/m³	General population	Systemic
	DNEL	Long term Dermal	-	0.66 mg/kg bw/ day	General population	Systemic
	DNEL	Long term Oral	-	0.1 mg/kg bw/ day	General population	Systemic

Predicted No Effect Concentration

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
4-Octanol, 3-amino-	-	Fresh water	0.039 mg/l	-
	-	Marine water	0.004 mg/l	-
	-	Fresh water sediment	0.148 mg/kg dwt	-
	-	Marine water sediment	0.015 mg/kg dwt	-
	-	Soil	0.007 mg/kg dwt	-
3,5,5-trimethylhexanoic acid	-	Fresh water	0.068 mg/l	-
	-	Marine water	0.007 mg/l	-
	-	Sewage Treatment Plant	23 mg/l	-
	-	Fresh water sediment	1.08 mg/kg dwt	-
	-	Marine water sediment	0.108 mg/kg dwt	-
	-	Soil	0.176 mg/kg dwt	-
Benzotriazole	-	Fresh water	97 µg/l	-
	-	Marine water	9.7 µg/l	-
	-	Sewage Treatment Plant	9.4 mg/l	-
	-	Fresh water sediment	1.1 mg/kg dwt	-
	-	Marine water sediment	0.11 mg/kg dwt	-
	-	Soil	0.169 mg/kg dwt	-
2-aminobutan-1-ol	-	Fresh water	0.001 mg/l	-
	-	Sewage Treatment Plant	10 mg/l	-
	-	Fresh water sediment	3.59 µg/kg dwt	-
	-	Marine water sediment	0.359 µg/kg dwt	-
	-	Soil	0.18 µg/kg dwt	-

8.2 Exposure controls

Appropriate engineering controls

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.
All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.
Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.
The final choice of protective equipment will depend upon a risk assessment. It is important to

SECTION 8: Exposure controls/personal protection

ensure that all items of personal protective equipment are compatible.

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.
For protection against metal working fluids, respiratory protection that is classified as “resistant to oil” (class R) or oil proof (class P) should be selected where appropriate. Depending on the level of airborne contaminants, an air-purifying, half-mask respirator (with HEPA filter) including disposable (P- or R-series) (for oil mists less than 50mg/m3), or any powered, air-purifying respirator equipped with hood or helmet and HEPA filter (for oil mists less than 125 mg/m3). Where organic vapours are a potential hazard during metalworking operations, a combination particulate and organic vapour filter may be necessary.
The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Eye/face protection

Safety glasses with side shields.

Skin protection

Hand protection

General Information:

Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. The correct choice of protective gloves depends upon the chemicals being handled, and the conditions of work and use. Most gloves provide protection for only a limited time before they must be discarded and replaced (even the best chemically resistant gloves will break down after repeated chemical exposures).

Gloves should be chosen in consultation with the supplier / manufacturer and taking account of a full assessment of the working conditions.

Wear suitable gloves.
Recommended: Nitrile gloves.
Breakthrough time:

Breakthrough time data are generated by glove manufacturers under laboratory test conditions and represent how long a glove can be expected to provide effective permeation resistance. It is important when following breakthrough time recommendations that actual workplace conditions are taken into account. Always consult with your glove supplier for up-to-date technical information on breakthrough times for the recommended glove type.
Our recommendations on the selection of gloves are as follows:

Continuous contact:

Gloves with a minimum breakthrough time of 240 minutes, or >480 minutes if suitable gloves can be obtained.
If suitable gloves are not available to offer that level of protection, gloves with shorter breakthrough times may be acceptable as long as appropriate glove maintenance and replacement regimes are determined and adhered to.

Short-term / splash protection:

Recommended breakthrough times as above.
It is recognised that for short-term, transient exposures, gloves with shorter breakthrough times may commonly be used. Therefore, appropriate maintenance and replacement regimes must be determined and rigorously followed.

Glove Thickness:

For general applications, we recommend gloves with a thickness typically greater than 0.35 mm.

It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.
Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers’ technical data should always be taken into account to ensure selection of the most appropriate glove for the task.

SECTION 8: Exposure controls/personal protection

Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:

• Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.

• Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential.

Skin and body

Use of protective clothing is good industrial practice.
Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

Refer to standards:

Respiratory protection: EN 529
Gloves: EN 420, EN 374
Eye protection: EN 166
Filtering half-mask: EN 149
Filtering half-mask with valve: EN 405
Half-mask: EN 140 plus filter
Full-face mask: EN 136 plus filter
Particulate filters: EN 143
Gas/combined filters: EN 14387

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state Liquid.

Colour Yellow. [Light]

Odour Unfragranced

Odour threshold Not available.

pH 9.4 [Conc. (% w/w): 6%]

Melting point/freezing point Not available.

Initial boiling point and boiling range >100°C (>212°F)

Flash point Closed cup: >100°C (>212°F) [Estimated. Water content interferes with flash point determination.]

Evaporation rate Not available.

Flammability Not available.

Lower and upper explosion limit Not available.

Vapour pressure <0.01 kPa

Vapour density Not available.

Not available.

Density and/or Relative density <1000 kg/m³ (<1 g/cm³) at 15°C

Solubility(ies)

Media	Result
water	Soluble

Partition coefficient n-octanol/water (log value) Not applicable.

Auto-ignition temperature Not available.

SECTION 9: Physical and chemical properties

Decomposition temperature Not available.

Kinematic viscosity Kinematic: 64 mm^2/s (64 cSt) at 40°C

Explosive properties Not available.

Oxidising properties Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.

10.2 Chemical stability The product is stable.

10.3 Possibility of hazardous reactions Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerisation will not occur.

10.4 Conditions to avoid Avoid excessive heat.

10.5 Incompatible materials Reactive or incompatible with the following materials: oxidising materials. Slightly reactive or incompatible with the following materials: acids.

10.6 Hazardous decomposition products Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result / Route	Test authority / Number		Species	Dose	Exposure	Remarks
Alcohols, C16-18 and C18-unsatd., ethoxylated	LC50 Inhalation Vapour	OECD	403	Rat	>100 mg/m³	6 hours	-
	LD50 Dermal	OECD	402	Rabbit	>2000 mg/kg	-	-
	LD50 Oral	OECD	401	Rat	>2000 mg/kg	-	-
Amine carbamate	LD50 Dermal	OECD	402	Rabbit	2504 mg/kg	-	-
	LD50 Oral	OECD	401	Rat - Female	1089 mg/kg	-	-
	LD50 Inhalation Vapour	-	-	Rat	1300 mg/m³	6 hours	-
4-Octanol, 3-amino-	LD50 Oral	OECD	425	Rat	550 mg/kg	-	-
3,5,5-trimethylhexanoic acid	LD50 Dermal	-	-	Rat	>2000 mg/kg	-	-
	LD50 Oral	OECD	401	Rat	1160 mg/kg	-	-
Benzotriazole	LD50 Dermal	-	-	Rabbit	>2000 mg/kg	-	-
	LD50 Oral	OECD	423	Rat	500 mg/kg	-	-
2-aminobutan-1-ol	LD50 Oral	OECD	401	Rat	1800 mg/kg	-	-
2-aminoethanol	LC50 Inhalation Vapour	-	-	Rat	1487 mg/m³	6 hours	-
	LD50 Dermal	OECD	402	Rat	2504 mg/kg	-	-

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	LD50 Oral	OECD	401	Rat	1089 mg/kg	-	-
Poly(oxy-1,2-ethanediyl), α-(carboxymethyl)-ω-[(9Z)-9-octadecen-1-yloxy]-	LD50 Oral	-	-	Rat	>2000 mg/kg	-	-

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Hysol SL 45 XBB	3156.2	73603.1	N/A	736.0	N/A
carbonic acid, compound with 2-aminoethanol (1:2)	500	N/A	N/A	N/A	N/A
4-Octanol, 3-amino-	500	N/A	N/A	N/A	N/A
3,5,5-trimethylhexanoic acid	500	N/A	N/A	N/A	N/A
benzotriazole	500	N/A	N/A	N/A	N/A
2-aminobutan-1-ol	500	N/A	N/A	N/A	N/A
2-aminoethanol	500	1100	N/A	11	N/A
neodecanoic acid	500	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Test authority / Test number		Species	Route / Result	Test concentration	Remarks
Alcohols, C16-18 and C18-unsatd., ethoxylated	OECD	405	Rabbit	Eyes - Not irritant	-	-
	OECD	404	Rabbit	Skin - Irritant	-	-
Amine carbamate	OECD	405	Rabbit	Eyes - Not irritant	-	-
	OECD	404	Rabbit	Skin - Not irritant	-	-
4-Octanol, 3-amino-	OECD	404	Rabbit	Skin - Corrosive	-	-
3,5,5-trimethylhexanoic acid	OECD	405	Rabbit	Eyes - Severe irritant	-	-
	OECD	404	Rabbit	Skin - Irritant	-	-
Benzotriazole	OECD	405	Rabbit	Eyes - Irritant	-	-
	OECD	404	Rabbit	Skin - Non-irritant to skin.	-	-
2-aminobutan-1-ol	-	-	Rabbit	Skin - Corrosive	-	-
2-aminoethanol	OECD	-	Rabbit	Eyes - Corrosive	-	-
	OECD	404	Rabbit	Skin - Corrosive	-	-
Poly(oxy-1,2-ethanediyl), α-(carboxymethyl)-ω-[(9Z)-9-octadecen-1-yloxy]-	OECD	405	Rabbit	Eyes - Severe irritant	-	Based on studies with similar substances.
	-	-	Rabbit	Skin - Non-irritant to skin.	-	Based on studies with similar substances.

Sensitiser

Product/ingredient name	Route	Test authority / Test number		Species	Result	Remarks
Alcohols, C16-18 and C18-unsatd., ethoxylated	skin	OECD	406	Guinea pig	Not sensitising	Based on studies with similar substances.
Amine carbamate	skin	OECD	406	Guinea pig	Not sensitising	-
4-Octanol, 3-amino-	skin	OECD	406	Guinea pig	Not sensitising	-

SECTION 11: Toxicological information

3,5,5-trimethylhexanoic acid	skin	OECD	406	Guinea pig	Not sensitising	-
Benzotriazole	skin	OECD	406	Guinea pig	Not sensitising	-
2-aminobutan-1-ol	skin	-	-	Guinea pig	Not sensitising	Based on studies with similar substances.
2-aminoethanol	skin	OECD	406	Guinea pig	Not sensitising	-

GERM CELL MUTAGENICITY

Product/ingredient name	Test authority / Test number	Cell	Type	Result	Remarks
Alcohols, C16-18 and C18-unsatd., ethoxylated	OECD 471	-	Experiment: In vitro Subject: Bacteria	Negative	Based on studies with similar substances.
	OECD 476	-	Experiment: In vitro Subject: Mammalian-Animal	Negative	Based on studies with similar substances.
	OECD 473	-	Experiment: In vitro Subject: Mammalian-Animal	Negative	Based on studies with similar substances.
	OECD 474	-	Experiment: In vivo Subject: Mammalian-Animal	Negative	Based on studies with similar substances.
Amine carbamate	OECD 471	-	Experiment: In vitro Subject: Bacteria	Negative	-
	OECD 473	-	Experiment: In vitro Subject: Mammalian-Animal	Negative	-
	OECD 474	-	Experiment: In vivo Subject: Mammalian-Animal	Negative	-
4-Octanol, 3-amino-	471 Bacterial Reverse Mutation Test	-	Experiment: In vitro Subject: Bacteria	Negative	-
	476 In vitro Mammalian Cell Gene Mutation Test	-	Experiment: In vitro Subject: Mammal - species unspecified	Negative	-
	473 In vitro Mammalian Chromosomal Aberration Test	-	Experiment: In vitro Subject: Mammal - species unspecified	Negative	-
	474 Mammalian Erythrocyte Micronucleus Test	-	Experiment: In vivo Subject: Mammal - species unspecified	Negative	-
3,5,5-trimethylhexanoic acid	471 Bacterial Reverse Mutation Test	-	Experiment: In vitro Subject: Bacteria	Negative	-
	473 In vitro Mammalian Chromosomal Aberration Test	-	Experiment: In vitro Subject: Mammal - species unspecified	Negative	-
	476 In vitro Mammalian Cell Gene Mutation	-	Experiment: In vitro Subject: Mammal - species	Negative	-

SECTION 11: Toxicological information

	Test			unspecified		
Benzotriazole	-	-	Experiment: In vitro	Subject: Bacteria	Negative	-
	476 In vitro Mammalian Cell Gene Mutation Test	-	Experiment: In vitro	Subject: Mammal - species unspecified	Negative	-
	474 Mammalian Erythrocyte Micronucleus Test	-	Experiment: In vivo	Subject: Mammal - species unspecified	Negative	-
2-aminobutan-1-ol	471 Bacterial Reverse Mutation Test	-	Experiment: In vitro	Subject: Bacteria	Negative	-
	476 In vitro Mammalian Cell Gene Mutation Test	-	Experiment: In vitro	Subject: Mammal - species unspecified	Negative	Based on studies with similar substances.
	474 Mammalian Erythrocyte Micronucleus Test	-	Experiment: In vivo	Subject: Mammal - species unspecified	Negative	Based on studies with similar substances.
2-aminoethanol	OECD 471	-	Experiment: In vitro	Subject: Bacteria	Negative	-
	OECD 473	-	Experiment: In vitro	Subject: Mammalian-Animal	Negative	-
	OECD 476	-	Experiment: In vitro	Subject: Mammalian-Animal	Negative	-

Carcinogenicity

Product/ingredient name	Test authority / Test number		Species	Route	Exposure	Result	Remarks
Benzotriazole	OECD	451	Rat	Oral	-	Negative	-

Reproductive toxicity

Product/ingredient name	Test authority / Test number		Species	Route	Exposure	Developmental	Maternal toxicity	Fertility	Remarks
Alcohols, C16-18 and C18-unsatd., ethoxylated	OECD	416	Rat	Dermal	-	Negative	Negative	Negative	Based on studies with similar substances.
Amine carbamate	OECD	416	Rat	Oral	-	Negative	Negative	Negative	-
4-Octanol, 3-amino-	OECD	421	Rat	Oral	-	Negative	Negative	Negative	-
3,5,5-trimethylhexanoic acid	OECD	443	Rat	Oral	-	Negative	Positive	Negative	-
Benzotriazole	OECD	421	Rat	Oral	-	Negative	Negative	Negative	-
2-aminobutan-1-ol	OECD	422	Rat	Oral	-	Negative	Positive	Negative	Based on studies with similar substances.
2-aminoethanol	OECD	416	Rat	Oral	-	Negative	Negative	Negative	Based on studies with similar substances.

SECTION 11: Toxicological information

Information on likely routes of exposure Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Inhalation Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion Irritating to mouth, throat and stomach.

Skin contact Causes skin irritation. Defatting to the skin.

Eye contact Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation No specific data.

Ingestion No specific data.

Skin contact Adverse symptoms may include the following:
irritation
redness
dryness
cracking

Eye contact Adverse symptoms may include the following:
pain or irritation
watering
redness

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Inhalation Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.

Ingestion Ingestion of large quantities may cause nausea and diarrhoea.

Skin contact Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.

Eye contact Potential risk of transient stinging or redness if accidental eye contact occurs.

Potential chronic health effects

General No known significant effects or critical hazards.

Carcinogenicity No known significant effects or critical hazards.

Mutagenicity No known significant effects or critical hazards.

Developmental effects No known significant effects or critical hazards.

Fertility effects No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

Remarks - Endocrine dirsupting properties for human health Summary/ Conclusion (All ingredients) Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Test authority / Test number		Species	Type / Result	Exposure	Effects	Remarks
Alcohols, C16-18 and C18-unsatd., ethoxylated	OECD	202	Daphnia	Acute EL50 51 mg/l	48 hours	-	-
	OECD	201	Algae	Acute ErL50 >11.3 mg/l	72 hours	-	-
	OECD	203	Fish	Acute LC50 10 to 100 mg/l	96 hours	-	-
	OECD	201	Algae	Chronic EL10 3.01 mg/l	72 hours	-	-
Amine carbamate	OECD	202	Daphnia	Acute EC50 32 mg/l	48 hours	-	-
	OECD	203	Fish	Acute EC50 >100 mg/l	96 hours	-	-

SECTION 12: Ecological information

	OECD	201	Algae	Acute ErC50 39 mg/l	72 hours	-	-
	OECD	201	Algae	Chronic NOEC 6.25 mg/l	72 hours	-	-
4-Octanol, 3-amino-	OECD	202	Daphnia	Acute EC50 44 mg/l	48 hours	-	-
	OECD	201	Algae	Acute ErC50 38 mg/l	72 hours	-	-
	OECD	203	Fish	Acute LC50 68 mg/l	96 hours	-	-
	OECD	201	Algae	Chronic NOEC 0.81 mg/l	72 hours	-	-
3,5,5-trimethylhexanoic acid	OECD	201	Algae	Acute EC50 81 mg/l	72 hours	-	-
	OECD	202	Daphnia	Acute EC50 68 mg/l	48 hours	-	-
	OECD	209	Micro-organism	Acute EC50 470 mg/l	3 hours	-	-
	OECD	203	Fish	Acute LC50 123 mg/l	96 hours	-	-
	OECD	201	Algae	Chronic NOEC 10 mg/l	72 hours	-	-
Benzotriazole	OECD	202	Daphnia	Acute EC50 15.8 mg/l	48 hours	-	-
	OECD	209	Micro-organism	Acute EC50 940 mg/l	3 hours	-	-
	OECD	201	Algae	Acute ErC50 75 mg/l	72 hours	-	-
	OECD	203	Fish	Acute LC50 180 mg/l	96 hours	-	-
	OECD	201	Algae	Chronic EC10 1.18 mg/l	72 hours	-	-
	OECD	211	Daphnia	Chronic EC10 0.97 mg/l	21 days	-	-
2-aminobutan-1-ol	OECD	209	Micro-organism	Acute EC50 329.2 mg/l	3 hours	-	-
	OECD	201	Algae	Acute ErC50 0.91 mg/l	72 hours	-	-
	OECD	202	Daphnia	Acute ErC50 115 mg/l	48 hours	-	-
	OECD	203	Fish	Acute LC50 270 mg/l	96 hours	-	-
	OECD	201	Algae	Chronic EC50 0.05 mg/l	72 hours	-	-
2-aminoethanol	OECD	202	Daphnia	Acute EC50 27.04 mg/l	48 hours	-	-
	OECD	201	Algae	Acute ErC50 2.8 mg/l	72 hours	-	-
	OECD	203	Fish	Acute LC50 >100 mg/l	96 hours	-	-
	-	-	Algae	Chronic ECr10 0.7 mg/l	72 hours	-	-
	OECD	211	Daphnia	Chronic NOEC 0.85 mg/l	21 days	-	-
	OECD	210	Fish	Chronic NOEC 1.24 mg/l	41 days	-	-
Poly(oxy-1,2-ethanediyl), α-(carboxymethyl)-ω-[(9Z)-9-octadecen-1-yloxy]-	OECD	202	Daphnia	Acute EC50 28.2 mg/l	48 hours	-	-
	OECD	209	Micro-organism	Acute EC50 620 mg/l	3 hours	-	-
	OECD	201	Algae	Acute ErC50 >200 mg/l	72 hours	-	-
	OECD	203	Fish	Acute LC50 5 to 10 mg/l	96 hours	-	-

Environmental hazards Not classified as dangerous

12.2 Persistence and degradability

Not expected to be rapidly degradable.

SECTION 12: Ecological information

Product/ingredient name	Test authority / Test number	Result - Exposure	Remarks
Alcohols, C16-18 and C18-unsatd., ethoxylated	OECD 301B	73 % - Readily - 28 days	-
Amine carbamate	OECD 301D	100 % - Readily - 28 days	-
4-Octanol, 3-amino-	OECD 301F	100 % - Readily - 28 days	-
3,5,5-trimethylhexanoic acid	OECD 301A	96 % - Readily - 21 days	-
Benzotriazole	OECD 301D	0 % - Not readily - 28 days	-
2-aminobutan-1-ol	OECD 301F	93 % - Readily - 28 days	-
2-aminoethanol	OECD 301A	>90 % - Readily - 21 days	-
Poly(oxy-1,2-ethanediyl), α-(carboxymethyl)-ω-[(9Z) -9-octadecen-1-yloxy]-	OECD 301E	73 % - Readily - 28 days	-

12.3 Bioaccumulative potential

Not available.

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Alcohols, C16-18 and C18-unsatd., ethoxylated	4.2	-	High
Amine carbamate	-1.78	-	Low
4-Octanol, 3-amino-	1.3	2.8	Low
3,5,5-trimethylhexanoic acid	3.2	-	Low
Benzotriazole	1.44	2.8	Low
2-aminobutan-1-ol	-0.45	<100	Low
2-aminoethanol	-2.3	-	Low
neodecanoic acid	2.1	-	Low

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) Not available.

Mobility Liquid. Soluble in water.

12.5 Results of PBT and vPvB assessment

Product does not meet the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII.

12.6 Other adverse effects No known significant effects or critical hazards.

Endocrine disrupting properties Not available.

Remarks - Endocrine disrupting properties for environment Summary/ Conclusion (All ingredients) Not available.

12.7 Other adverse effects No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

SECTION 13: Disposal considerations

Methods of disposal

Undiluted fluid Where possible, arrange for product to be recycled. Dispose of via an authorised person/ licensed waste disposal contractor in accordance with local regulations. Diluted Fluid The spent diluted fluid comprises a relatively stable emulsion. Dispose of via an authorised person/ licensed waste disposal contractor or by other suitable waste treatment techniques (e.g. emulsion splitting, coagulation and filtration) approved by the local authority. Spent fluid should never be disposed of down the drain. The aqueous phase should not be discharged into sewage systems unless provided for by local regulations; the non-aqueous phase should be disposed of as undiluted fluid. Note that separated aqueous solutions or effluents may contain metal salts as well as traces of oil and must be checked for conformity in these respects against consents given by the authorities before disposal. Further treatment may be required.

Hazardous waste

Yes.

European waste catalogue (EWC)

Waste code	Waste designation
12 01 07* 12 01 09*	mineral-based machining oils free of halogens (except emulsions and solutions) machining emulsions and solutions free of halogens

However, deviation from the intended use and/or the presence of any potential contaminants may require an alternative waste disposal code to be assigned by the end user.

Packaging

Methods of disposal

Where possible, arrange for product to be recycled. Dispose of via an authorised person/ licensed waste disposal contractor in accordance with local regulations.

Waste code	European waste catalogue (EWC)
15 01 10*	packaging containing residues of or contaminated by hazardous substances

Special precautions

This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Empty containers represent a fire hazard as they may contain flammable product residues and vapour. Never weld, solder or braze empty containers. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

References

Commission 2014/955/EU
Directive 2008/98/EC

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-

14.6 Special precautions for user

Not available.

14.7 Maritime transport in bulk according to IMO instruments

Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
Hysol SL 45 XBB	≥90	3

Labelling Not applicable.

Other regulations

REACH Status The company, as identified in Section 1, sells this product in the EU in compliance with the current requirements of REACH.

United States inventory (TSCA 8b) All components are active or exempted.

Australia inventory (AIIC) At least one component is not listed.

Canada inventory At least one component is not listed in DSL but all such components are listed in NDSL.

China inventory (IECSC) All components are listed or exempted.

Japan inventory (CSCL) All components are listed or exempted.

Korea inventory (KECI) At least one component is not listed.

Philippines inventory (PICCS) At least one component is not listed.

Taiwan Chemical Substances Inventory (TCSI) All components are listed or exempted.

Explosive precursors Not applicable.

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

15.2 Chemical safety assessment A Chemical Safety Assessment has been carried out for one or more of the substances within this mixture. A Chemical Safety Assessment has not been carried out for the mixture itself.

SECTION 16: Other information

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
CSA = Chemical Safety Assessment
CSR = Chemical Safety Report
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EINECS = European Inventory of Existing Commercial chemical Substances
ES = Exposure Scenario
EUH statement = CLP-specific Hazard statement
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods

SECTION 16: Other information

LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SADT = Self-Accelerating Decomposition Temperature
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVCB = Complex hydrocarbon substance
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative
Varies = may contain one or more of the following 64741-88-4 / RRN 01-2119488706-23, 64741-89-5 / RRN 01-2119487067-30, 64741-95-3 / RRN 01-2119487081-40, 64741-96-4/ RRN 01-2119483621-38, 64742-01-4 / RRN 01-2119488707-21, 64742-44-5 / RRN 01-2119985177-24, 64742-45-6, 64742-52-5 / RRN 01-2119467170-45, 64742-53-6 / RRN 01-2119480375-34, 64742-54-7 / RRN 01-2119484627-25, 64742-55-8 / RRN 01-2119487077-29, 64742-56-9 / RRN 01-2119480132-48, 64742-57-0 / RRN 01-2119489287-22, 64742-58-1, 64742-62-7 / RRN 01-2119480472-38, 64742-63-8, 64742-65-0 / RRN 01-2119471299-27, 64742-70-7 / RRN 01-2119487080-42, 72623-85-9 / RRN 01-2119555262-43, 72623-86-0 / RRN 01-2119474878-16, 72623-87-1 / RRN 01-2119474889-13

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Irrit. 2, H315	Expert judgment
Eye Irrit. 2, H319	Expert judgment

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Skin Corr. 1	SKIN CORROSION/IRRITATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Europe

Full text of abbreviated H statements

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Skin Corr. 1	SKIN CORROSION/IRRITATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

SECTION 16: Other information

History

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Date of previous issue	07/03/2025.
Prepared by	Product Stewardship

Indicates information that has changed from previously issued version.

Notice to reader

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SECTION 16: Other information

SECTION 16: Other information

Partition coefficient n-octanol/ water (log value)

Kinematic viscosity