

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

### 1.1 Product identifier

Product name	Hysol SL 50 XBB
UFI:	<input checked="" type="checkbox"/> NY4-Q0UY-W00D-55HF
Product code	469775-FR01
SDS #	469775
Product type	Liquid.

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Handling and dilution of metal working fluid concentrates-Industrial
Use of lubricants in high energy open processes-Industrial
Use of lubricants in high energy open processes-Professional

Use of the substance/ mixture	Metalworking fluid - soluble. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
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### 1.3 Details of the supplier of the safety data sheet

Supplier	Lubricants UK Limited, Chertsey Road, Sunbury On Thames, Middlesex, TW16 7BP
E-mail address	+44 (0)345 600 8125 MSDSadvice@bp.com

### 1.4 Emergency telephone number

EMERGENCY TELEPHONE NUMBER	Carechem: +44 (0) 1235 239 670 (24/7)
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## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Product definition	Mixture
<a href="#">Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]</a>	

Skin Irrit. 2, H315  
Aquatic Chronic 3, H412

**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

UFI:	<input checked="" type="checkbox"/> NY4-Q0UY-W00D-55HF
Hazard pictograms	<input checked="" type="checkbox"/>



Signal word	<input checked="" type="checkbox"/> Warning
Hazard statements	<input checked="" type="checkbox"/> H315 - Causes skin irritation. <input checked="" type="checkbox"/> H412 - Harmful to aquatic life with long lasting effects.

### [Precautionary statements](#)

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**SECTION 2: Hazards identification**

<b>Prevention</b>	P280 - Wear protective gloves. P273 - Avoid release to the environment. P264 - Wash hands thoroughly after handling.
<b>Response</b>	P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
<b>Storage</b>	Not applicable.
<b>Disposal</b>	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Hazardous ingredients</b>	Not applicable.
<b>Supplemental label elements</b>	Not applicable.

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

<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	Not applicable.
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**Special packaging requirements**

<b>Containers to be fitted with child-resistant fastenings</b>	Not applicable.
<b>Tactile warning of danger</b>	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.  
 Experimental data on one or more of the components has been used to determine all or part of the hazard classification of this product.  
 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
2-Amino-2-methylpropanol	REACH #: 01-2119475788-16 EC: 204-709-8 CAS: 124-68-5 Index: 603-070-00-6	≤10	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412	-	[1]
dicyclohexylamine	REACH #: 01-2119493354-33 EC: 202-980-7 CAS: 101-83-7 Index: 612-066-00-3	≤10	Acute Tox. 3, H301 Acute Tox. 3, H311 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 100 mg/kg ATE [Dermal] = 300 mg/kg M [Acute] = 1 M [Chronic] = 1	[1]
neodecanoic acid	REACH #: 01-2119449554-33	≤5	Acute Tox. 4, H302	ATE [Oral] = 500 mg/kg	[1]

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### SECTION 3: Composition/information on ingredients

Poly(oxy-1,2-ethanediyl), $\alpha$ -(9Z)-9-octadecen-1-yl- $\omega$ -hydroxy-, phosphate 2,2'-(methylimino)diethanol	EC: 248-093-9 CAS: 26896-20-8 CAS: 39464-69-2	$\leq 3$	Skin Irrit. 2, H315 Eye Dam. 1, H318	-	[1]
undecanedioic acid	REACH #: 01-2119488970-24 EC: 203-312-7 CAS: 105-59-9 Index: 603-079-00-5 REACH #: 01-2119983505-29 EC: 217-440-6 CAS: 1852-04-6	$\leq 3$	Eye Irrit. 2, H319	-	[1]
Amines, tallow alkyl, ethoxylated	EC: 500-153-8 CAS: 61791-26-2	$\leq 1$	Acute Tox. 4, H302 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/kg M [Acute] = 1 M [Chronic] = 1	[1]

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

#### Type

[1] Substance classified with a health or environmental hazard

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

No known significant effects or critical hazards.

##### 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.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media**

Use foam or all-purpose dry chemical to extinguish.

**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<sub>2</sub>) (carbon monoxide, carbon dioxide)  
 nitrogen oxides (NO, NO<sub>2</sub> etc.)  
 phosphorus oxides

### 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. This material is harmful to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**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). Water polluting material. May be harmful to the environment if released in large quantities.

### 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.

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## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

#### 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. Use appropriate containment to avoid environmental contamination.

#### Not suitable

Prolonged exposure to elevated temperature

### 7.3 Specific end use(s)

#### Recommendations

See section 1.2 and Exposure scenarios in annex, if applicable.

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 8.1 Control parameters

#### Occupational exposure limits

No exposure limit value known.

Whilst specific OELs for certain components may be shown in this section, other components may be present in any mist, vapour or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

#### 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.

#### Derived No Effect Level

Product/ingredient name	Type	Exposure	Value	Population	Effects	
2-Amino-2-methylpropanol	DNEL	Long term Inhalation	-	6.5 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	-	7.3 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	-	1.6 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	-	37 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	-	0.46 mg/kg bw/day	General population	Systemic
dicyclohexylamine	DNEL	Long term Inhalation	-	0.353 mg/m <sup>3</sup>	Workers	Systemic

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2,2'-(methylimino)diethanol	DNEL	Long term Dermal	-	0.1 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	-	7.9 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	-	5.6 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	-	0.05 mg/kg bw/day	Workers	Local
	DNEL	Long term Inhalation	-	0.4 mg/m³	General population	Systemic
	DNEL	Long term Dermal	-	0.67 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	-	0.03 mg/kg bw/day	General population	Local
	DNEL	Long term Oral	-	0.13 mg/kg bw/day	General population	Systemic
undecanedioic acid	DNEL	Long term Inhalation	-	70 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	-	10 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	-	17.4 mg/m³	General population	Systemic
	DNEL	Long term Dermal	-	5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	-	5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	-	5 mg/kg bw/day	General population	Systemic

**Predicted No Effect Concentration**

Product/ingredient name	Compartment Detail	Value	Method Detail
2-Amino-2-methylpropanol	Fresh water	0.188 mg/l	-
	Marine water	0.019 mg/l	-
	Sewage Treatment Plant	10 mg/l	-
	Fresh water sediment	0.71 mg/kg dwt	-
	Marine water sediment	0.071 mg/kg dwt	-
	Soil	0.03 mg/kg dwt	-
dicyclohexylamine	Fresh water	0.002 mg/l	-
	Marine water	0 mg/l	-
	Sewage Treatment Plant	21 mg/l	-
	Fresh water sediment	0.075 mg/kg dwt	-
	Marine water sediment	0.007 mg/kg dwt	-
	Soil	0.014 mg/kg dwt	-
2,2'-(methylimino)diethanol	Fresh water	0.278 mg/l	-
	Marine water	0.028 mg/l	-
	Sewage Treatment Plant	10 mg/l	-
	Fresh water sediment	2.17 mg/kg dwt	-
	Marine water sediment	0.217 mg/kg dwt	-
	Soil	0.27 mg/kg dwt	-
undecanedioic acid	Fresh water	0.039 mg/l	-
	Marine water	0.004 mg/l	-
	Sewage Treatment Plant	10 mg/l	-
	Fresh water sediment	0.064 mg/kg dwt	-
	Marine water sediment	0.006 mg/kg dwt	-
	Soil	0.047 mg/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 ensure that all items of personal protective equipment are compatible.

**Individual protection measures**

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**SECTION 8: Exposure controls/personal protection**

**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.

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

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**SECTION 8: Exposure controls/personal protection**

- 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**

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

**9.1 Information on basic physical and chemical properties**

- Physical state** Liquid.
- Colour** Yellow. [Light]
- Odour** Unfragranced
- Odour threshold** Not available.
- Melting point/freezing point** Not available.
- Initial boiling point and boiling range** >100°C (>212°F)
- Flammability** Not available.
- Lower and upper explosion limit** Not available.
- Flash point** Closed cup: >100°C (>212°F) [Estimated. Water content interferes with flash point determination.]

**Auto-ignition temperature**

Ingredient name	°C	°F	Method
Amino-2-methylpropanol	438	820.4	ASTM D 2161
dicyclohexylamine	255	491	
neodecanoic acid	375	707	ASTM E 659
2,2'-(methylimino)diethanol	280	536	DIN 51794

**Decomposition temperature**

Not available.

**pH**

9.9 [Conc. (% w/w): 5%]

**Kinematic viscosity**

Kinematic: 64 mm<sup>2</sup>/s (64 cSt) at 40°C

**Solubility**

Media	Result
water	Soluble

## SECTION 9: Physical and chemical properties

Partition coefficient n-octanol/water (log value)	Not applicable.
Vapour pressure	<0.01 kPa
Density and/or Relative density	<1000 kg/m <sup>3</sup> (<1 g/cm <sup>3</sup> ) at 15°C
Relative vapour density	Not available.
<b>Particle characteristics</b>	
Median particle size	Not applicable.
<b>9.2 Other information</b>	
Evaporation rate	Not available.
Explosive properties	Not available.
Oxidising properties	No data available

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.
<b>10.2 Chemical stability</b>	The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerisation will not occur.
<b>10.4 Conditions to avoid</b>	Avoid excessive heat.
<b>10.5 Incompatible materials</b>	Reactive or incompatible with the following materials: oxidising materials. Slightly reactive or incompatible with the following materials: acids.
<b>10.6 Hazardous decomposition products</b>	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
2-Amino-2-methylpropanol	LD50 Dermal	OECD 402	Rabbit	>2000 mg/kg	-	-
	LD50 Oral	OECD 401	Rat	2900 mg/kg	-	-
dicyclohexylamine	LC50 Inhalation Vapour	-	Rat	>1.4 mg/l	6 hours	-
	LD50 Dermal	-	Rabbit	200 to 316 mg/kg	-	-
Poly(oxy-1,2-ethanediyl), α-(9Z)-9-octadecen-1-yl-ω-hydroxy-, phosphate	LD50 Oral	-	Rat	200 mg/kg	-	-
	LD50 Oral	-	Rat	>2000 mg/kg	-	-
2,2'-(methylimino) diethanol	LD50 Dermal	OECD 402	Rabbit	>5000 mg/kg	-	-
	LD50 Oral	OECD 401	Rat	4680 mg/kg	-	-
undecanedioic acid	LD50 Dermal	-	Rabbit	>6000 mg/kg	-	Based on studies with similar substances.
	LD50 Oral	-	Rat	>5000 mg/kg	-	Based on

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**SECTION 11: Toxicological information**

Amines, tallow alkyl, ethoxylated	LD50 Oral	Equivalent to OECD	-	Rat	500 mg/kg	-	-	studies with similar substances.
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**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)
Amines, tallow alkyl, ethoxylated	500	N/A	N/A	N/A	N/A

**Irritation/Corrosion**

Product/ingredient name	Test authority / Test number	Species	Route / Result	Test concentration	Remarks
Hysol SL 50 XBB	OECD 492B	RhCE	Eyes - Non-irritating to the eyes.	-	-
2-Amino-2-methylpropanol	-	Rabbit	Eyes - Severe irritant	-	-
dicyclohexylamine	-	Rabbit	Skin - Irritant	-	-
	-	Rabbit	Eyes - Severe irritant	-	-
	-	Rabbit	Skin - Corrosive	-	-
Poly(oxy-1,2-ethanediyl), α-(9Z)-9-octadecen-1-yl-ω-hydroxy-, phosphate	-	Rabbit	Eyes - Severe irritant	-	-
	-	Rabbit	Skin - Irritant	-	-
2,2'-(methylimino) diethanol	OECD 405	Rabbit	Eyes - Irritant	-	-
	OECD 404	Rabbit	Skin - Not irritant	-	-
undecanedioic acid	OECD 405	Rabbit	Eyes - Irritant	-	Based on studies with similar substances.
	OECD 404	Rabbit	Skin - Not irritant	-	Based on studies with similar substances.
Amines, tallow alkyl, ethoxylated	-	Rabbit	Eyes - Severe irritant	-	-
	-	Rabbit	Skin - Not irritant	-	-

**Eyes** Not classified as an eye irritant. Based on available data, the classification criteria are not met.

**Sensitiser**

Product/ingredient name	Route	Test authority / Test number	Species	Result	Remarks
2-Amino-2-methylpropanol	skin	OECD 406	Guinea pig	Not sensitising	-
2,2'-(methylimino) diethanol	skin	OECD 406	Guinea pig	Not sensitising	-
undecanedioic acid	skin	OECD 406	Guinea pig	Not sensitising	Based on studies with similar substances.

**GERM CELL MUTAGENICITY**

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**SECTION 11: Toxicological information**

Product/ingredient name	Test authority / Test number	Cell	Type	Result	Remarks	
Amino-2-methylpropanol	OECD 471	-	Experiment: In vitro	Subject: Bacteria	Negative	-
	OECD 476	-	Experiment: In vitro	Subject: Mammalian-Human	Negative	-
	OECD 474	-	Experiment: In vivo	Subject: Mammalian-Human	Negative	-
dicyclohexylamine	471 Bacterial Reverse Mutation Test	-	Experiment: In vitro	Subject: Bacteria	Negative	-
	-	-	Experiment: In vitro	Subject: Mammal - species unspecified	Negative	-
	474 Mammalian Erythrocyte Micronucleus Test	-	Experiment: In vitro	Subject: Mammal - species unspecified	Negative	-
	478 Genetic Toxicology: Rodent Dominant Lethal Test	-	Experiment: In vivo	Subject: Mammal - species unspecified	Negative	-
	471 Bacterial Reverse Mutation Test	-	Experiment: In vitro	Subject: Bacteria	Negative	-
2,2'-(methylimino) diethanol	473 In vitro Mammalian Chromosomal Aberration Test	-	Experiment: In vitro	Subject: Mammal - species unspecified	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	-
	471 Bacterial Reverse Mutation Test	-	Experiment: In vitro	Subject: Bacteria	Negative	Based on studies with similar substances.
undecanedioic acid	-	-	Experiment: In vitro	Subject: Mammal - species unspecified	Negative	Based on studies with similar substances.
	-	-	Experiment: In vivo	Subject: Mammal - species unspecified	Negative	Based on studies with similar substances.
	-	-	Experiment: In vitro	Subject: Bacteria	Negative	Based on studies with similar substances.

**Carcinogenicity**

Not available.

**Reproductive toxicity**

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**SECTION 11: Toxicological information**

Product/ ingredient name	Test authority / Test number	Species	Route	Exposure	Developmental	Maternal toxicity	Fertility	Remarks
<input checked="" type="checkbox"/> Amino- 2-methylpropanol	OECD 443	Rat	Oral	-	Negative	Negative	Negative	-
dicyclohexylamine	OECD 421	Rat	Oral	-	Negative	Positive	Negative	-
2,2'-(methylimino) diethanol	OECD 416	Rat	Oral	-	Negative	Negative	Negative	-

**Aspiration hazard**

Product/ingredient name	Result
Not available.	

**Conclusion/Summary** Not classified. Based on available data, the classification criteria are not met.

**Conclusion/Summary** Not available.

**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**  No known significant effects or critical hazards.

**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.

**11.2.2 Other information**

Not available.

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**SECTION 12: Ecological information**

**12.1 Toxicity**

Product/ingredient name	Test authority / Test number	Species	Type / Result	Exposure	Effects	Remarks	
2-Amino-2-methylpropanol	OECD 201	Algae	Acute ErC50 >100 mg/l	72 hours	-	-	
	OECD 202	Daphnia	Acute LC50 >100 mg/l	48 hours	-	-	
	OECD 203	Fish	Acute LC50 >100 mg/l	96 hours	-	-	
	OECD 201	Algae	Chronic NOEC 6.6 mg/l	72 hours	-	-	
	dicyclohexylamine	DIN 38412 Part 11	Daphnia	Acute EC50 43 mg/l	48 hours	-	-
	DIN 38412 Part 8	Micro-organism	Acute EC50 201 mg/l	17 hours	-	-	
	OECD 201	Algae	Acute ErC50 1 mg/l	72 hours	-	-	
	OECD 203	Fish	Acute LC50 62 mg/l	96 hours	-	-	
	OECD 201	Daphnia	Chronic NOEC 2 mg/l	72 hours	-	-	
Poly(oxy-1,2-ethanediyl), α-(9Z)-9-octadecen-1-yl-ω-hydroxy-, phosphate	-	-	Fish	Acute LC50 >100 mg/l	96 hours	-	Based on available data, the classification criteria are not met.
	-	-	-	-	-	-	
2,2'-(methylimino) diethanol	DIN 38412, part 9	Algae	Acute EC50 >100 mg/l	72 hours	-	-	
	OECD 202	Daphnia	Acute EC50 >100 mg/l	48 hours	-	-	
	DIN 38412, part 8	Micro-organism	Acute EC50 >100 mg/l	17 hours	-	-	
	DIN 38412, part 15	Fish	Acute LC50 >1000 mg/l	96 hours	-	-	
	DIN 38412, part 9	Algae	Chronic NOEC 6.25 mg/l	72 hours	-	-	
undecanedioic acid	ISO 8192	Micro-organism	Acute EC20 >1000 mg/l	3 hours	-	-	
	OECD 202	Daphnia	Acute EC50 >100 mg/l	48 hours	-	-	
	ISO 10253	Algae	Acute EL50 38.7 mg/l	72 hours	-	-	
	OECD 203	Fish	Acute LC50 >100 mg/l	96 hours	-	-	
	ISO 10253	Algae	Chronic NOEC 3 mg/l	72 hours	-	-	
Amines, tallow alkyl, ethoxylated	-	-	Daphnia	Acute EC50 5.2 mg/l	48 hours	-	-
	-	-	Fish	Acute LC50 0.11 to 1 mg/l	96 hours	-	-

**Environmental hazards** Harmful to aquatic life with long lasting effects.

**12.2 Persistence and degradability**

Not expected to be rapidly degradable.

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## SECTION 12: Ecological information

Product/ingredient name	Test authority / Test number	Result - Exposure	Remarks
2-Amino-2-methylpropanol	OECD 301F	89.3 % - Readily - 28 days	-
dicyclohexylamine	OECD 301D	96 % - Readily - 20 days	-
Poly(oxy-1,2-ethanediyl), $\alpha$ -(9Z)-9-octadecen-1-yl- $\omega$ -hydroxy-, phosphate	OECD 302	98 % - Readily - 28 days	-
2,2'-(methylimino)diethanol	OECD 301A	>90 % - Readily - 18 days	-
undecanedioic acid	OECD 301D	71 % - Readily - 28 days	-
Amines, tallow alkyl, ethoxylated	OECD 302B	70 % - Readily - 28 days	-

  

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
dicyclohexylamine	-	-	Readily

### 12.3 Bioaccumulative potential

Not available.

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
2-Amino-2-methylpropanol	-0.63	-	Low
dicyclohexylamine	2.724	-	Low
neodecanoic acid	2.1	-	Low
2,2'-(methylimino)diethanol	-1.08	0.9 to 9	Low
undecanedioic acid	2.8	-	Low

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)**

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 Endocrine disrupting properties**

Not available.

**12.7 Other adverse effects**

No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

**Product**

**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)**

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**SECTION 13: Disposal considerations**

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

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
<b>14.1 UN number or ID number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>14.2 UN proper shipping name</b>	-	-	-	-
<b>14.3 Transport hazard class(es)</b>	-	-	-	-
<b>14.4 Packing group</b>	-	-	-	-
<b>14.5 Environmental hazards</b>	No.	No.	No.	No.
<b>Additional information</b>	-	-	-	-

**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 50 XBB	95-100	3

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**SECTION 15: Regulatory information**

<b>Labelling</b>	Not applicable.
<b>Other regulations</b>	
<b>REACH Status</b>	The company, as identified in Section 1, sells this product in the EU in compliance with the current requirements of REACH.
<b>United States inventory (TSCA 8b)</b>	All components are active or exempted.
<b>Australia inventory (AIC)</b>	At least one component is not listed.
<b>Canada inventory</b>	At least one component is not listed in DSL but all such components are listed in NDSL.
<b>China inventory (IECSC)</b>	All components are listed or exempted.
<b>Japan inventory (CSCL)</b>	All components are listed or exempted.
<b>Korea inventory (KECI)</b>	At least one component is not listed.
<b>Philippines inventory (PICCS)</b>	At least one component is not listed.
<b>Taiwan Chemical Substances Inventory (TCSI)</b>	All components are listed or exempted.
<b>Explosive precursors</b>	Not applicable.
<b>Ozone depleting substances (1005/2009/EU)</b>	Not listed.
<b>Prior Informed Consent (PIC) (649/2012/EU)</b>	Not listed.
<b>Persistent Organic Pollutants</b>	Not listed.
<b>EU - Water framework directive - Priority substances</b>	None of the components are listed.
<b>Seveso Directive</b>	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**

<b>Abbreviations and acronyms</b>	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 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
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**SECTION 16: Other information**

[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 Aquatic Chronic 3, H412	Expert judgment Expert judgment

**Full text of abbreviated H statements**

H220 Extremely flammable gas.  
 H224 Extremely flammable liquid and vapour.  
 H225 Highly flammable liquid and vapour.  
 H230 May react explosively even in the absence of air.  
 H280 Contains gas under pressure; may explode if heated.  
 H290 May be corrosive to metals.  
 H301 Toxic if swallowed.  
 H302 Harmful if swallowed.  
 H311 Toxic 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.  
 H331 Toxic if inhaled.  
 H335 May cause respiratory irritation.  
 H336 May cause drowsiness or dizziness.  
 H340 May cause genetic defects.  
 H350 May cause cancer.  
 H360Fd May damage fertility. Suspected of damaging the unborn child.  
 H372 Causes damage to organs through prolonged or repeated exposure.

**Full text of classifications [CLP/GHS]**

H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.  
 H412 Harmful to aquatic life with long lasting effects.  
 EUH019 May form explosive peroxides.  
 EUH066 Repeated exposure may cause skin dryness or cracking.  
 Acute Tox. 3 ACUTE TOXICITY - Category 3  
 Acute Tox. 4 ACUTE TOXICITY - Category 4  
 Aquatic Acute 1 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1  
 Aquatic Chronic 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1  
 Aquatic Chronic 3 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3  
 Carc. 1B CARCINOGENICITY - Category 1B  
 Chem. Unst. Gas A CHEMICALLY UNSTABLE GASES - Category A  
 Eye Dam. 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1  
 Eye Irrit. 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2  
 Flam. Gas 1A FLAMMABLE GASES - Category 1A  
 Flam. Liq. 1 FLAMMABLE LIQUIDS - Category 1  
 Flam. Liq. 2 FLAMMABLE LIQUIDS - Category 2  
 Met. Corr. 1 CORROSIVE TO METALS - Category 1  
 Muta. 1B GERM CELL MUTAGENICITY - Category 1B  
 Press. Gas (Comp.) GASES UNDER PRESSURE - Compressed gas  
 Repr. 1B REPRODUCTIVE TOXICITY - Category 1B

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**SECTION 16: Other information**

Skin Corr. 1A	SKIN CORROSION/IRRITATION - Category 1A
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

**History**

<b>Date of issue/ Date of revision</b>	02/04/2025.
<b>Date of previous issue</b>	30/10/2024.
<b>Prepared by</b>	Product Stewardship

Indicates information that has changed from previously issued version.

**Notice to reader**

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.

<b>Product name</b> Hysol SL 50 XBB	<b>Product code</b> 469775-FR01	<b>Page:</b> 18/26
<b>Version</b> 8	<b>Date of issue</b> 2 April 2025	<b>Format</b> United Kingdom (UK) (United Kingdom)
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## Annex to the extended Safety Data Sheet (eSDS)

Industrial

### Identification of the substance or mixture

<b>Product definition</b>	Mixture
<b>Code</b>	469775-FR01
<b>Product name</b>	Hysol SL 50 XBB

### Section 1: Title

<b>Short title of the exposure scenario</b>	Handling and dilution of metal working fluid concentrates - Industrial
<b>List of use descriptors</b>	<p><b>Identified use name:</b> Handling and dilution of metal working fluid concentrates-Industrial</p> <p><b>Process Category:</b> PROC01, PROC02, PROC08b, PROC05</p> <p><b>Sector of end use:</b> SU03</p> <p><b>Subsequent service life relevant for that use:</b> No.</p> <p><b>Environmental Release Category:</b> ERC02</p> <p><b>Specific Environmental Release Category:</b> ATIEL-ATC SPERC 2.Ei.v1</p>

<b>Processes and activities covered by the exposure scenario</b>	Handling and dilution of metal working fluid concentrates. Includes associated product storage, material transfers, sampling and maintenance activities.
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## Section 2 Operational conditions and risk management measures

### Section 2.1 Control of worker exposure

#### Product characteristics:

<b>Physical state:</b>	Liquid, vapour pressure < 0.5 kPa
<b>Concentration of substance in product:</b>	Covers use of substance/product up to 100 % (unless stated differently)
<b>Frequency and duration of use:</b>	Covers daily exposures up to 8 hours
<b>Other conditions affecting workers exposure:</b>	Assumes use at not more than 20°C above ambient temperature. Assumes a good basic standard of occupational hygiene is implemented

#### Contributing scenarios: Operational conditions and risk management measures

General measures applicable to all activities:  
Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop. Use suitable eye protection. Avoid direct eye contact with product also via contamination on hands.

Filling of equipment from drums or containers:  
Avoid carrying out activities involving exposure for more than 4 hours per day.

Process sampling:  
Avoid carrying out activities involving exposure for more than 4 hours per day.

Equipment cleaning and maintenance:  
Drain down system prior to equipment break-in or maintenance. Avoid carrying out activities involving exposure for more than 4 hours per day. Retain drain-downs in sealed storage pending disposal or for subsequent recycle.

Storage:  
Store substance within a closed system.

## Section 2.2: Control of environmental exposure

<b>Amounts used:</b>	3.02E+02 Tonnes/year
<b>EU tonnage of risk determining substance per year:</b>	3.02E+02 Tonnes/year
<b>Frequency and duration of use:</b>	
<b>Emission days</b>	300
<b>Environment factors not influenced by risk management:</b>	
<b>Local freshwater dilution factor</b>	10
<b>Local marine water dilution factor</b>	100
<b>Other conditions affecting environmental exposure:</b>	Water-based (oil in water emulsion) or straight oil (contains no water) process
<b>Release fraction to air (after typical onsite RMMs)</b>	5.00E-05
<b>Release fraction to soil from process (after typical onsite RMMs)</b>	0
<b>Release fraction to wastewater from process (after typical onsite RMMs and before sewage treatment plan)</b>	No data available
<b>Technical conditions and measures at process level (source) to prevent release:</b>	Common practices vary across sites thus conservative process release estimates used.
<b>Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:</b>	Prevent discharge of undissolved substance to or recover from onsite wastewater. User sites are assumed to be provided with oil/water separators and waste water to be discharged via a sewage treatment plant
<b>Organisational measures to prevent/limit release from site:</b>	Do not apply industrial sludge to natural soils. Sewage sludge should be incinerated, contained or reclaimed.
<b>Conditions and measures related to sewage treatment plant:</b>	
<b>Estimated substance removal from wastewater via on-site sewage treatment</b>	No data available
<b>Assumed domestic sewage treatment plant flow rate (m3/d)</b>	2.00E+3
<b>Maximum allowable site tonnage (M<sub>Safe</sub>) based on release following total wastewater treatment removal as product:</b>	No data available
<b>Conditions and measures related to external treatment of waste for disposal:</b>	External treatment and disposal of waste should comply with applicable local and/or national regulations.
<b>Conditions and measures related to external recovery of waste:</b>	External recovery and recycling of waste should comply with applicable local and/or national regulations.

## Section 3: Exposure estimation and reference to its source

### Exposure estimation and reference to its source - Environment

**Exposure assessment (environment):** Used ECETOC TRA model (May 2010 release).

### Exposure estimation and reference to its source - Workers

**Exposure assessment (human):** The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

## Section 4: Guidance to check compliance with the exposure scenario

**Environment**

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. For further information see [www.ATIEL.org/REACH\\_GES](http://www.ATIEL.org/REACH_GES)

**Health**

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

## Annex to the extended Safety Data Sheet (eSDS)

Industrial

### Identification of the substance or mixture

<b>Product definition</b>	Mixture
<b>Code</b>	469775-FR01
<b>Product name</b>	Hysol SL 50 XBB

### Section 1: Title

<b>Short title of the exposure scenario</b>	Use of lubricants in high energy open processes - Industrial
<b>List of use descriptors</b>	<p><b>Identified use name:</b> Use of lubricants in high energy open processes-Industrial</p> <p><b>Process Category:</b> PROC01, PROC02, PROC08b, PROC17</p> <p><b>Sector of end use:</b> SU03</p> <p><b>Subsequent service life relevant for that use:</b> No.</p> <p><b>Environmental Release Category:</b> ERC04</p> <p><b>Specific Environmental Release Category:</b> ATIEL-ATC SPERC 4.Fi.v1</p>

<b>Processes and activities covered by the exposure scenario</b>	Covers use of lubricants in high energy open processes, e.g. In high speed machinery such as metal rolling/forming or metal working fluids for machining and grinding. Includes associated product storage, material transfers, sampling and maintenance activities.
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### Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of worker exposure

##### Product characteristics:

<b>Physical state:</b>	Liquid, vapour pressure < 0.5 kPa
<b>Concentration of substance in product:</b>	Covers use of substance/product up to 100 % (unless stated differently)
<b>Frequency and duration of use:</b>	Covers daily exposures up to 8 hours
<b>Other conditions affecting workers exposure:</b>	Assumes use at not more than 20°C above ambient temperature. Assumes a good basic standard of occupational hygiene is implemented

#### Contributing scenarios: Operational conditions and risk management measures

General measures applicable to all activities:

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop. Use suitable eye protection. Avoid direct eye contact with product also via contamination on hands.

Filling of equipment from drums or containers:  
No specific measures identified.

Metal machining operations:  
Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.

Operation and lubrication of high energy open equipment:  
Provide a good standard of controlled ventilation (10 to 15 air changes per hour).

Automated metal rolling/forming Use in contained systems Operation is carried out at elevated temperature (> 20°C above ambient temperature):  
No other specific measures identified.

Semi-automated metal rolling/forming Open systems Operation is carried out at elevated temperature (> 20°C above ambient temperature):  
Provide extract ventilation to points where emissions occur.

Equipment cleaning and maintenance:  
Drain down system prior to equipment break-in or maintenance. Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Retain drain-downs in sealed storage pending disposal or for subsequent recycle.  
Storage:

**Hysol SL 50 XBB**

**Use of lubricants in high energy open processes - Industrial**

Store substance within a closed system.

## Section 2.2: Control of environmental exposure

### Amounts used:

**EU tonnage of risk determining substance per year:** 2.05E+02 Tonnes/year

### Frequency and duration of use:

**Emission days** 300

### Environment factors not influenced by risk management:

**Local freshwater dilution factor** 10

**Local marine water dilution factor** 100

**Other conditions affecting environmental exposure:** Water-based (oil in water emulsion) or straight oil (contains no water) process

**Release fraction to air (after typical onsite RMMs)** 5.00E-05

**Release fraction to soil from process (after typical onsite RMMs)** 0

**Release fraction to wastewater from process (after typical onsite RMMs and before sewage treatment plan)** Not available.

**Technical conditions and measures at process level (source) to prevent release:** Common practices vary across sites thus conservative process release estimates used.

**Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:** Prevent discharge of undissolved substance to or recover from onsite wastewater.

User sites are assumed to be provided with oil/water separators and waste water to be discharged via a sewage treatment plant

**Organisational measures to prevent/limit release from site:** Do not apply industrial sludge to natural soils.

Sewage sludge should be incinerated, contained or reclaimed.

**Assumed domestic sewage treatment plant flow rate (m<sup>3</sup>/d)** 2.00E+3

**Maximum allowable site tonnage (M<sub>safe</sub>) based on release following total wastewater treatment removal as product:** Not available.

**Conditions and measures related to external treatment of waste for disposal:** External treatment and disposal of waste should comply with applicable local and/or national regulations.

**Conditions and measures related to external recovery of waste:** External recovery and recycling of waste should comply with applicable local and/or national regulations.

## Section 3: Exposure estimation and reference to its source

### Exposure estimation and reference to its source - Environment

**Exposure assessment (environment):** Used ECETOC TRA model (May 2010 release).

### Exposure estimation and reference to its source - Workers

**Exposure assessment (human):** The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

## Section 4: Guidance to check compliance with the exposure scenario

### Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. For further information see [www.ATIEL.org/REACH\\_GES](http://www.ATIEL.org/REACH_GES)

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

## Annex to the extended Safety Data Sheet (eSDS)

Professional

### Identification of the substance or mixture

<b>Product definition</b>	Mixture
<b>Code</b>	469775-FR01
<b>Product name</b>	Hysol SL 50 XBB

### Section 1: Title

<b>Short title of the exposure scenario</b>	Use of lubricants in high energy open processes - Professional
<b>List of use descriptors</b>	<p><b>Identified use name:</b> Use of lubricants in high energy open processes-Professional</p> <p><b>Process Category:</b> PROC01, PROC02, PROC08a, PROC17</p> <p><b>Sector of end use:</b> SU22</p> <p><b>Subsequent service life relevant for that use:</b> No.</p> <p><b>Environmental Release Category:</b> ERC08a</p> <p><b>Specific Environmental Release Category:</b> ATIEL-ATC SpERC 8.7c.v1</p>

<b>Processes and activities covered by the exposure scenario</b>	Covers use of lubricants in high energy open processes, e.g. In high speed machinery such as metal rolling/forming or metal working fluids for machining and grinding. Includes associated product storage, material transfers, sampling and maintenance activities.
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### Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of worker exposure

##### Product characteristics:

<b>Physical state:</b>	Liquid, vapour pressure < 0.5 kPa
<b>Concentration of substance in product:</b>	Covers use of substance/product up to 100 % (unless stated differently)
<b>Frequency and duration of use:</b>	Covers daily exposures up to 8 hours
<b>Other conditions affecting workers exposure:</b>	Assumes use at not more than 20°C above ambient temperature. Assumes a good basic standard of occupational hygiene is implemented

#### Contributing scenarios: Operational conditions and risk management measures

General measures applicable to all activities:

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop. Use suitable eye protection. Avoid direct eye contact with product also via contamination on hands.

Filling of equipment from drums or containers:

Avoid carrying out activities involving exposure for more than 1 hour per day.

Metal machining operations:

Provide extract ventilation to points where emissions occur.

Operation and lubrication of high energy open equipment:

Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Avoid carrying out activities involving exposure for more than 4 hours per day. Wear a respirator conforming to EN140 with type A filter or better. Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training.

Equipment cleaning and maintenance:

Drain down system prior to equipment break-in or maintenance. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan. Avoid carrying out activities involving exposure for more than 4 hours per day. Wear a respirator conforming to EN140 with type A filter or better. Retain drain-downs in sealed storage pending disposal or for subsequent recycle.

Storage:

Store substance within a closed system.

## Section 2.2: Control of environmental exposure

### Amounts used:

EU tonnage of risk determining substance per year: 2.05E+02 Tonnes/year

### Frequency and duration of use:

Emission days 365

### Environment factors not influenced by risk management:

Local freshwater dilution factor 10

Local marine water dilution factor 100

### Other conditions affecting environmental exposure:

Negligible wastewater emissions as process operates without water contact.

Release fraction to air (after typical onsite RMMs) 5.00E-05

Release fraction to soil from process (after typical onsite RMMs) 1E-03

Release fraction to wastewater from process (after typical onsite RMMs and before sewage treatment plan) Not available.

### Technical conditions and measures at process level (source) to prevent release:

Common practices vary across sites thus conservative process release estimates used.

### Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:

Prevent discharge of undissolved substance to or recover from onsite wastewater.

### Organisational measures to prevent/limit release from site:

Do not apply industrial sludge to natural soils. Sewage sludge should be incinerated, contained or reclaimed.

Assumed domestic sewage treatment plant flow rate (m<sup>3</sup>/d) 2.00E+3

Maximum allowable site tonnage (M<sub>Safe</sub>) based on release following total wastewater treatment removal as product: Not available.

### Conditions and measures related to external treatment of waste for disposal:

External treatment and disposal of waste should comply with applicable local and/or national regulations.

### Conditions and measures related to external recovery of waste:

External recovery and recycling of waste should comply with applicable local and/or national regulations.

## Section 3: Exposure estimation and reference to its source

### Exposure estimation and reference to its source - Environment

Exposure assessment (environment): Used ECETOC TRA model (May 2010 release).

### Exposure estimation and reference to its source - Workers

Exposure assessment (human): The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

## Section 4: Guidance to check compliance with the exposure scenario

### Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. For further information see [www.ATIEL.org/REACH\\_GES](http://www.ATIEL.org/REACH_GES)

### Health

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.