SAFETY DATA SHEET

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

1.1 Product identifier

Product name	**Hysol SL 50 XBB**
Product code	469775-FR01
SDS no.	469775
Original preparation date	05/08/2021
Product type	Liquid.

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

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	Castrol Madeni Yağlar Ticaret A.Ş İçerenköy Mah. Değirmen Yolu Cad. Mengerler Blok No: 28/1 İç Kapı No: 12 Ataşehir/İstanbul
E-mail address	MSDSadvice@bp.com

1.4 Emergency telephone number

EMERGENCY TELEPHONE NUMBER	CASTROL DIRECT 0212 473 77 37 Carechem: +44 (0) 1235 239 670 (24/7) Ministry of Health National Poison Information Centre: 114 (24 hours)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to regulation SEA: RG.-10/12/2020-31330

Skin Irrit. 2, H315
Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation SEA: RG.-10/12/2020-31330.

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

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

2.2 Label elements

Hazard pictograms

Signal word Warning

Hazard statements
H315 - Causes skin irritation.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention	P280 - Wear protective gloves. P273 - Avoid release to the environment. 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.
Storage	Not applicable.
Disposal	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

SECTION 2: Hazards identification

Supplemental label elements Not applicable.

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

Product meets the criteria for PBT or vPvB 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.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Mixture

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

Product/ingredient name	Identifiers	%	SEA: RG.-10/12/2020-31330	Type
Distillates (petroleum), hydrotreated heavy naphthenic	EC: 265-155-0 CAS: 64742-52-5 Index: 649-465-00-7	≥25 - ≤50	Not classified.	[2]
2-amino-2-methylpropanol	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	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 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
Neodecanoic acid	EC: 248-093-9 CAS: 26896-20-8	≤5	Acute Tox. 4, H302	[1]
Poly(oxy-1,2-ethanediyl), α-(9Z)-9-octadecen-1-yl-ω-hydroxy-, phosphate	CAS: 39464-69-2	≤3	Skin Irrit. 2, H315 Eye Dam. 1, H318	[1]
2,2'-(methylimino)diethanol	EC: 203-312-7 CAS: 105-59-9 Index: 603-079-00-5	≤3	Eye Irrit. 2, H319	[1]
undecanedioic acid	CAS: 1852-04-6	≤3	Eye Irrit. 2, H319	[1]
Amines, tallow alkyl, ethoxylated	EC: 500-153-8 CAS: 61791-26-2	≤1	Acute Tox. 4, H302 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]

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

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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

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 adverse health effects persist or are severe.

Skin contact

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention. If skin irritation or rash occurs: Get medical advice/attention.

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.

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.

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.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture

Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects.

Hazardous combustion products

Combustion products may include the following:
phosphorus oxides
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 positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. 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. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

SECTION 6: Accidental release measures

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.

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 (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Avoid contact of spilt material and runoff with soil and surface waterways. 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. To maintain optimum performance and minimise bacterial spoilage, machine tool coolant systems should be cleaned on a regular basis.

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. Contaminated work clothing should not be allowed out of the workplace. 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 original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. DO NOT ADD NITRITES TO THIS FLUID.

Not suitable

Prolonged exposure to elevated temperature

7.3 Specific end use(s)

Recommendations

Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Distillates (petroleum), hydrotreated heavy naphthenic	**ACGIH TLV (United States). [Mineral Oil, pure, highly and severely refined]** TWA: 5 mg/m³ 8 hours. Issued/Revised: 11/2009 Form: Inhalable fraction

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.

Biological exposure indices

No exposure indices known.

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.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
2-amino-2-methylpropanol	DNEL	Long term Inhalation	6.5 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	7.3 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.6 mg/m³	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/m³	Workers	Systemic
	DNEL	Long term Dermal	0.1 mg/kg bw/day	Workers	Systemic
2,2'-(methylimino)diethanol	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

PNECs

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	-

SECTION 8: Exposure controls/personal protection

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

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.
Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.
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

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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. 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

Undiluted fluid: Chemical goggles.
Diluted fluid: Safety glasses with side shields.

Skin protection

Hand protection

Wear suitable gloves. Undiluted fluid: Wear chemical resistant gloves. Recommended: nitrile gloves.
Diluted fluid: Wear protective gloves if prolonged or repeated contact is likely. Recommended: nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

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.

SECTION 8: Exposure controls/personal protection

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

Appearance

Physical state Liquid.

Colour Yellow. [Light]

Odour Unfragranced

Odour threshold Not available.

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

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

Upper/lower flammability or explosive limits Not available.

Vapour pressure <0.01 kPa

Vapour density Not available.

Relative density Not available.

Density <1000 kg/m³ (<1 g/cm³) at 15°C

Solubility(ies)

Media	Result
water	Soluble

Partition coefficient: n-octanol/water Not applicable.

Auto-ignition temperature

Ingredient name	°C	°F	Method
2-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.

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

Explosive properties Not available.

Oxidising properties No data available

Particle characteristics

Median particle size Not applicable.

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.

SECTION 10: Stability and reactivity

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 toxicological effects

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	-	-
	LD50 Oral	-	-	Rat	200 mg/kg	-	-
Poly(oxy-1,2-ethanediyl), α-(9Z)-9-octadecen-1-yl-ω-hydroxy-, phosphate	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 studies with similar substances.
Amines, tallow alkyl, ethoxylated	LD50 Oral	Equivalent to OECD	-	Rat	500 mg/kg	-	-

Acute toxicity estimates

Route	ATE value
Dermal	5024.22 mg/kg

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	-	-
	-	-	Rabbit	Skin - Irritant	-	-
dicyclohexylamine	-	-	Rabbit	Eyes - Severe irritant	-	-

SECTION 11: Toxicological information

	-	-	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

Product/ingredient name	Test authority / Test number	Cell		Type	Result	Remarks
2-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	-	Experiment: In vivo	Subject: Mammal - species unspecified	Negative	-

SECTION 11: Toxicological information

	Test					
2,2'-(methylimino) diethanol	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 Test	-	Experiment: In vitro	Subject: Mammal - species unspecified	Negative	-
	474 Mammalian Erythrocyte Micronucleus Test	-	Experiment: In vivo	Subject: Mammal - species unspecified	Negative	-
undecanedioic acid	471 Bacterial Reverse Mutation Test	-	Experiment: In vitro	Subject: Bacteria	Negative	Based on studies with similar substances.
	-	-	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.

Reproductive toxicity

Product/ingredient name	Test authority / Test number		Species	Route	Exposure	Developmental	Maternal toxicity	Fertility	Remarks
2-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	-

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.

SECTION 11: Toxicological information

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.

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	-	-
	OECD	211	Fish	Chronic NOEC 0.016 mg/l	21 days	-	-
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	-	-

SECTION 12: Ecological information

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.

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), α-(9Z)-9-octadecen-1-yl-ω-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	$LogP_{ow}$	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_{OC}) Not available.

Mobility Liquid. Soluble in water.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste Yes.

Waste list

SECTION 13: Disposal considerations

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

Packaging

Methods of disposal The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Waste code	Waste list
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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN 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 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

Turkey Regulation No. 30105, KKDIK

None of the components are listed.

Substances of very high concern

None of the components are listed.

Regulation on the prevention of major industrial accidents and reduction of their effects

This product is not controlled under the Regulation on the prevention of major industrial accidents and reduction of their effects.

Annex 17 - 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	≥90	3

Labelling Not applicable.

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

Annex XIV - List of substances subject to authorisation

SECTION 15: Regulatory information

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

National inventory

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.
REACH Status	The company, as identified in Section 1, sells this product in the EU in compliance with the current requirements of REACH.
Taiwan Chemical Substances Inventory (TCSI)	All components are listed or exempted.
United States inventory (TSCA 8b)	All components are active or exempted.
15.2 Chemical safety assessment	This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms

ACGIH = American Conference of Industrial Hygienists
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
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
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
SADT = Self-Accelerating Decomposition Temperature
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, 64741-89-5, 64741-95-3, 64741-96-4, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-63-8, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1

Full text of abbreviated H statements

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.
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.

SECTION 16: Other information

Full text of classifications [CLP/GHS]

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
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2

History

Date of issue/ Date of revision 2 April 2025

Date of previous issue 30 October 2024.

Prepared by Product Stewardship

Çağnur Çelik, no ve Tarihi: GBF11.217.02 / 27.12.2023
cagnur.celik@bp.com, +90 216 571 2937

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.