

Safety Data Sheet

REFINISH HP REDUCER 20-30

Safety Data Sheet dated 12/21/2022 version 4



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

1.1. Product identifier

Mixture identification:

Trade name: REFINISH HP REDUCER 20-30

Trade code: LOSR0772

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

Recommended use: Coatings and paints, thinners, paint removers

Thinner for coatings

Liquid

Professional uses

Uses advised against: N.A.

1.3. Details of the supplier of the safety data sheet

Company: Lechler SpA - Via Cecilio, 17 - 22100 Como - CO - Italy

Telephone: +39031586111

First Email: safety@lechler.eu

1.4. Emergency telephone number

UNITED KINGDOM: Emergency Number 0044 1606738600 - This telephone number is available during office hours only (8.45-16.45).

SECTION 2: Hazards identification



2.1. Classification of the substance or mixture

Regulation (EC) n. 1272/2008 (CLP)

Flam. Liq. 2 Highly flammable liquid and vapour.

Eye Irrit. 2 Causes serious eye irritation.

STOT SE 3 May cause drowsiness or dizziness.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Regulation (EC) No 1272/2008 (CLP):

Pictograms and Signal Words



Danger

Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P403+P235 Store in a well-ventilated place. Keep cool.

Special Provisions:

EUH066 Repeated exposure may cause skin dryness or cracking.

Contains

n-butyl acetate
ethyl acetate
2-ethoxy-1-methylethyl acetate

Special provisions according to Annex XVII of REACH and subsequent amendments:

None.

2.3. Other hazards

Results of PBT and vPvB assessment Not a PBT, vPvB substance as per the criteria of the REACH Regulation. Endocrine disrupting properties-Toxicity The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Endocrine disrupting properties-Ecotoxicity The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: REFINISH HP REDUCER 20-30

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb.	Classification	Registration Number
≥40 - ≤50 %	n-butyl acetate	CAS:123-86-4 EC:204-658-1 Index:607-025-00-1	Flam. Liq. 3, H226; STOT SE 3, H336, EUH066	01-2119485493-29
≥25 - ≤30 %	ethyl acetate	CAS:141-78-6 EC:205-500-4 Index:607-022-00-5	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	01-2119475103-46
≥20 - ≤25 %	2-butoxyethyl acetate	CAS:112-07-2 EC:203-933-3 Index:607-038-00-2	Acute Tox. 4, H302; Acute Tox. 4, H332; Acute Tox. 4, H312	01-2119475112-47
≥10 - ≤12.5 %	2-ethoxy-1-methylethyl acetate	CAS:54839-24-6 EC:259-370-9 Index:603-177-00-8	Flam. Liq. 3, H226; STOT SE 3, H336	01-2119475116-39

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.
Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.
Wash thoroughly the body (shower or bath).
Remove contaminated clothing immediately and dispose off safely.
After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and label hazardous.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

4.2. Most important symptoms and effects, both acute and delayed

Eye irritation

Eye damages

4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Always keep in a well ventilated place.

Store between 5° and 35°C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

7.3. Specific end use(s)

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Community Occupational Exposure Limits (OEL)

	OEL Type	Country	Occupational Exposure Limit
n-butyl acetate CAS: 123-86-4	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 724 mg/m3 - 150 ppm; Short Term: 966 mg/m3 - 200 ppm
	EU		Long Term: 241 mg/m3 - 50 ppm; Short Term: 723 mg/m3 - 150 ppm Behaviour Indicative 2019/1831/EU
	ACGIH		Long Term: 50 ppm; Short Term: 150 ppm Eye and URT irr
ethyl acetate CAS: 141-78-6	EU		Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm Behaviour Indicative 2017/164/EU
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 734 mg/m3 - 200 ppm; Short Term: 1468 mg/m3 - 400 ppm
2-butoxyethyl acetate CAS: 112-07-2	ACGIH		Long Term: 20 ppm A3 - Hemolysis
	EH40	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 133 mg/m3 - 20 ppm; Short Term: 332 mg/m3 - 50 ppm Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to
	EU		Long Term: 133 mg/m3 - 20 ppm; Short Term: 333 mg/m3 - 50 ppm Behaviour Indicative 2000/39/EC
	EU		Identifies the possibility of significant uptake through the skin

Biological limit values

2-butoxyethyl acetate CAS: 112-07-2	Biological Indicator: Butoxyacetic acid (BAA); Sampling Period: End of turn; End of working week Value: 200 mg/g Creatinine; Medium: Urine Remark: Czech Republic. Biological Exposure Indices
	Biological Indicator: Butoxyacetic acid (BAA); Sampling Period: End of turn; End of working week Value: 17 mmol/mmol creatinine; Medium: Urine Remark: Czech Republic. Biological Exposure Indices
	Biological Indicator: Butoxyacetic acid (BAA); Sampling Period: In case of long-term exposure: after more than one shift Value: 200 mg/L; Medium: Urine Remark: TRGS 903 - Biological limit values
	Biological Indicator: Butoxyacetic acid (BAA); Sampling Period: In case of long-term exposure: after more than one shift Value: 100 mg/L; Medium: Urine Remark: TRGS 903 - Biological limit values
	Biological Indicator: total butoxy acetic acid; Sampling Period: In case of long-term exposure: after more than one shift Value: 200 mg/L; Medium: Urine Remark: Svizzera. Lista di valori BAT

Biological Indicator: total butoxy acetic acid; Sampling Period: In case of long-term exposure: after more than one shift
Value: 15134 micromol per litre; Medium: Urine
Remark: Svizzera. Lista di valori BAT

Biological Indicator: 2-butoxy acetic acid; Sampling Period: Immediately after exposure or after working hours
Value: 100 mg/L; Medium: Urine
Remark: Svizzera. Lista di valori BAT

Biological Indicator: 2-butoxy acetic acid; Sampling Period: In case of long-term exposure: after more than one shift
Value: 7567 micromol per litre; Medium: Urine
Remark: Svizzera. Lista di valori BAT

Sampling Period: Immediately after exposure or after working hours

Sampling Period: In case of long-term exposure: after more than one shift

Predicted No Effect Concentration (PNEC) values

n-butyl acetate
CAS: 123-86-4

Exposure Route: Fresh Water; PNEC Limit: 0,18 mg/l

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 0,36 mg/l

Exposure Route: Marine water; PNEC Limit: 0,01 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 0,98 mg/kg

Exposure Route: Marine water sediments; PNEC Limit: 0,09 mg/kg

Exposure Route: Soil; PNEC Limit: 0,09 mg/kg

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 35,6 mg/l

2-butoxyethyl acetate
CAS: 112-07-2

Exposure Route: Fresh Water; PNEC Limit: 0,304 mg/l

Exposure Route: Marine water; PNEC Limit: 0,03 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 2,03 mg/kg

Exposure Route: Marine water sediments; PNEC Limit: 0,203 mg/kg

Exposure Route: Soil; PNEC Limit: 0,415 mg/kg

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 90 mg/l

2-ethoxy-1-methylethyl
acetate
CAS: 54839-24-6

Exposure Route: Fresh Water; PNEC Limit: 2 mg/l

Exposure Route: Marine water; PNEC Limit: 0,2 mg/l

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 2 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 8,2 mg/l

Exposure Route: Marine water sediments; PNEC Limit: 0,67 mg/l

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 62,5 mg/l

Exposure Route: Oral; PNEC Limit: 117 mg/l

Derived No Effect Level (DNEL) values

n-butyl acetate
CAS: 123-86-4

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Industry: 300 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects
Worker Industry: 600 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
Worker Industry: 300 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects
Worker Industry: 600 mg/m³

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Industry: 11 mg/kg dry weight (d.w.)

Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects
Worker Industry: 11 mg/kg dry weight (d.w.)

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Consumer: 35,7 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects
Consumer: 300 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
Consumer: 35,7 mg/m3

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects
Consumer: 300 mg/m3

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Consumer: 6 mg/kg dry weight (d.w.)

Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects
Consumer: 6 mg/kg dry weight (d.w.)

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects
Consumer: 2 mg/kg dry weight (d.w.)

Exposure Route: Human Oral; Exposure Frequency: Short Term, systemic effects
Consumer: 2 mg/kg dry weight (d.w.)

2-butoxyethyl acetate
CAS: 112-07-2

Exposure Route: Human Inhalation; Exposure Frequency: Short Term (acute)
Consumer: 200 mg/m3

Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects
Consumer: 72 mg/kg

Exposure Route: Oral; Exposure Frequency: Short Term, systemic effects
Consumer: 36 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Consumer: 80 mg/m3

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Consumer: 102 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Short Term (acute)
Worker Professional: 333 mg/m3

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Professional: 133 mg/m3

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Professional: 169 mg/kg

2-ethoxy-1-methylethyl
acetate
CAS: 54839-24-6

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects
Worker Industry: 2366 mg/m3; Worker Professional: 2366 mg/kg; Consumer: 1420 mg/m3

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Industry: 152 mg/m3; Worker Professional: 152 mg/m3; Consumer: 181 mg/m3

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Industry: 103 mg/kg; Worker Professional: 103 mg/kg; Consumer: 62 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects
Consumer: 13,1 mg/kg

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Use adequate protective respiratory equipment.

Thermal Hazards:

N.A.

Environmental exposure controls:

N.A.

Hygienic and Technical measures

N.A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State Liquid

Color: Colourless
Odour: N.A.
pH: Not Relevant
Kinematic viscosity: $\leq 20,5 \text{ mm}^2/\text{sec}$ (40 °C)
Melting point / freezing point: N.A.
Initial boiling point and boiling range: N.A.
Flash point: 18,5 °C (65,3 °F)
Upper/lower flammability or explosive limits: N.A.
Vapour density: N.A.
Vapour pressure: N.A.
Relative density: 0.90 g/cm³
Solubility in water: N.A.
Solubility in oil: N.A.
Partition coefficient (n-octanol/water): N.A.
Auto-ignition temperature: N.A.
Decomposition temperature: N.A.
Flammability: The product is classified Flam. Liq. 2 H225
Kinematic viscosity m²/s (40°C) $\leq 20,5 \text{ mm}^2/\text{sec}$ (40 °C)
Viscosity:

Particle characteristics:

Particle size: N.A.

9.2. Other information

Evaporation rate: N.A.
Miscibility: N.A.
Conductivity: N.A.
No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Data not available.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

Avoid contact with combustible materials. The product could catch fire.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

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

Toxicological Information of the Preparation

a) acute toxicity	Not classified Based on available data, the classification criteria are not met ATEmix - Oral : 8952.38 mg/kg bw ATEmix - Dermal : 7142.86 mg/kg bw ATEmix - Inhalation (Vapours) : 52.381 mg/l
b) skin corrosion/irritation	Not classified Based on available data, the classification criteria are not met
c) serious eye damage/irritation	The product is classified: Eye Irrit. 2(H319)
d) respiratory or skin sensitisation	Not classified Based on available data, the classification criteria are not met
e) germ cell mutagenicity	Not classified Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified

	Based on available data, the classification criteria are not met
h) STOT-single exposure	The product is classified: STOT SE 3(H336)
i) STOT-repeated exposure	Not classified
	Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified
	Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

n-butyl acetate	a) acute toxicity	LD50 Oral Rat = 10760 mg/kg LC50 Inhalation > 20, mg/l 4h LD50 Skin Rabbit > 14112, mg/kg	OECD Test Guideline 423 OECD Test Guideline 402
ethyl acetate	a) acute toxicity	LD50 Oral Rat = 5620 mg/kg LC50 Inhalation Rat = 56 mg/l 4h LD50 Skin Rabbit > 18000 mg/kg	
2-butoxyethyl acetate	a) acute toxicity	LD50 Oral Rat = 1880 mg/kg ATE Skin = 1100, mg/kg LD50 Skin Rabbit = 1500, mg/kg LC0 Inhalation Rat = 400, Ppm 4h	Converted acute toxicity p estimate
2-ethoxy-1-methylethyl acetate	a) acute toxicity	LD50 Oral Rat > 5000 LC50 Inhalation Mist Rat > 6,99 4h	OECD Test Guideline 401 OECD Test Guideline 403

11.2. Information on other hazards

Endocrine disrupting properties:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of Eco-Toxicological properties of the product

Not classified for environmental hazards.

No data available for the product

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
n-butyl acetate	CAS: 123-86-4 - EINECS: 204- 658-1 - INDEX: 607-025-00-1	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas (fathead minnow) = 18 mg/L 96 H OECD Test Guideline 203 a) Aquatic acute toxicity : EC50 Invertebrates Daphnia magna (Water flea) = 44 mg/L 48 H OECD Test Guideline 202 e) Plant toxicity : EC50 Algae Selenastrum capricornutum (green algae) = 397 mg/L 72 H OECD Test Guideline 201 c) Bacteria toxicity : IC50 Microorganisms Tetrahymena pyriformis = 356 mg/L 40 H
ethyl acetate	CAS: 141-78-6 - EINECS: 205- 500-4 - INDEX: 607-022-00-5	a) Aquatic acute toxicity : LC50 Fish = 230 mg/L 96 H a) Aquatic acute toxicity : EC50 Invertebrates Daphnia (water flea) > 2500

mg/L 24 H

e) Plant toxicity : EC50 Algae > 100 mg/L 72 H

2-butoxyethyl acetate

CAS: 112-07-2 -
EINECS: 203-
933-3 - INDEX:
607-038-00-2

a) Aquatic acute toxicity : EC50 Invertebrates Daphnia magna (Water flea) =
145 mg/L 24 H

e) Plant toxicity : EC50 Algae = 1570 mg/L 72 H

a) Aquatic acute toxicity : LC50 Fish = 20 mg/L 96h

2-ethoxy-1-methylethyl acetate

CAS: 54839-24-
6 - EINECS:
259-370-9 -
INDEX: 603-
177-00-8

a) Aquatic acute toxicity : LC50 Fish Oncorhynchus mykiss (rainbow trout) =
140 mg/L 96 H OECD Test Guideline 203

a) Aquatic acute toxicity : EC50 Invertebrates Daphnia magna (Water flea) =
110 mg/L 48 H OECD Test Guideline 202

e) Plant toxicity : EC50 Algae Desmodesmus subspicatus (green algae) > 100
mg/L 72 H OECD Test Guideline 201

c) Bacteria toxicity : EC10 Microorganisms Pseudomonas putida = 560 mg/L
16 H

b) Aquatic chronic toxicity : NOEC Invertebrates Daphnia magna (Water flea)
>= 100 mg/L 21 D

a) Aquatic acute toxicity : NOEC Fish Oryzias latipes (Orange-red killifish) =
47,5 mg/L 96 H

e) Plant toxicity : NOEC Algae Desmodesmus subspicatus (green algae) >=
100 mg/L 72 H

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT Ingredients are present

12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have
endocrine disrupting properties according to REACH Article 57(f) or
Commission Delegated regulation (EU) 2017/2100 or Commission
Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

N.A.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number or ID number

1263

14.2. UN proper shipping name

ADR-Shipping Name: PAINT RELATED MATERIAL
IATA-Technical name: PAINT RELATED MATERIAL
IMDG-Technical name: PAINT RELATED MATERIAL

14.3. Transport hazard class(es)

ADR-Class: 3

IATA-Class: 3

IMDG-Class: 3

14.4. Packing group

ADR-Packing Group: II

IATA-Packing group: II

IMDG-Packing group: II

14.5. Environmental hazards

Toxic Ingredients Qty: 0.00

High Toxicity Ingredients Qty: 0.00

Marine pollutant: No

Environmental Pollutant: No

IMDG-EMS: F-E, S-E

14.6. Special precautions for user

Road and Rail (ADR-RID) :

ADR exempt:

ADR-Label: 3

ADR - Hazard identification number: 33

ADR-Special Provisions: 163 367 640C 650

ADR-Transport category (Tunnel restriction code): 2 (D/E)

Air (IATA) :

IATA-Passenger Aircraft: 353

IATA-Cargo Aircraft: 364

IATA-Label: 3

IATA-Subsidiary hazards: -

IATA-Erg: 3L

IATA-Special Provisioning: A3 A72 A192

Sea (IMDG) :

IMDG-Stowage Code: Category B

IMDG-Stowage Note: -

IMDG-Subsidiary hazards: -

IMDG-Special Provisioning: 163 367

14.7. Maritime transport in bulk according to IMO instruments

N.A.

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

Regulation (EU) n. 2020/217 (ATP 14 CLP)

Regulation (EU) n. 2020/1182 (ATP 15 CLP)

Regulation (EU) n. 2021/643 (ATP 16 CLP)

Regulation (EU) n. 2021/849 (ATP 17 CLP)

Regulation (EU) n. 2020/878

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3, 40

Restrictions related to the substances contained: 75
Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1	Lower-tier threshold (tonnes)	Upper-tier threshold (tonnes)
Product belongs to category: P5c	5000	50000
Regulation (EU) No 649/2012 (PIC regulation)		

No substances listed
German Water Hazard Class.
1: Low hazard to waters

SVHC Substances:
No data available

Dir. 2010/75/EC (VOC directive)
Volatile Organic compounds - VOCs = 100.00 %
Volatile Organic compounds - VOCs = 900.00 g/L
Estimated Total Content of Water 0.00 %
Estimated Total Solid Content 0.00 %

Storage Class (TRGS 510)
Storage Class (TRGS 510) Flammable liquid substances

Classification according to VbF
Classification according to VbF A I - Flash point less than 21 °C, at 15 °C not miscible in water

Mal-Code (Denmark)	Mal Factor	Unit of Measure	Revision Status / Number	Regulatory Base
3 - 3	1318	m3 air/10 g	1993	Administrative determined MAL-Factors

Biocides
REGULATION (EC) No 528/2012

15.2. Chemical safety assessment
No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Code	Description
EUH066	Repeated exposure may cause skin dryness or cracking.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.

Code	Hazard class and hazard category	Description
2.6/2	Flam. Liq. 2	Flammable liquid, Category 2
2.6/3	Flam. Liq. 3	Flammable liquid, Category 3
3.1/4/Dermal	Acute Tox. 4	Acute toxicity (dermal), Category 4
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
2.6/2	On basis of test data
3.3/2	Calculation method
3.8/3	Calculation method

This document was prepared by a competent person who has received appropriate training.
Main bibliographic sources:

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CAV: Poison Center

CE: European Community

CLP: Classification, Labeling, Packaging.

CMR: Carcinogenic, Mutagenic and Reprotoxic

COD: Chemical Oxygen Demand

COV: Volatile Organic Compound

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DMEL: Derived Minimal Effect Level

DNEL: Derived No Effect Level.

DPD: Dangerous Preparations Directive

DSD: Dangerous Substances Directive

EC50: Half Maximal Effective Concentration

ECHA: European Chemicals Agency

EINECS: European Inventory of Existing Commercial Chemical Substances.

ES: Exposure Scenario

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

IC50: half maximal inhibitory concentration

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

IMDG: International Maritime Code for Dangerous Goods.

INCI: International Nomenclature of Cosmetic Ingredients.

IRCCS: Scientific Institute for Research, Hospitalization and Health Care

KAFH: KAFH

KSt: Explosion coefficient.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

LDLo: Leathal Dose Low

N.A.: Not Applicable

N/A: Not Applicable

N/D: Not defined/ Not available

NA: Not available

NIOSH: National Institute for Occupational Safety and Health

NOAEL: No Observed Adverse Effect Level

OSHA: Occupational Safety and Health Administration.

PBT: Persistent, Bioaccumulative and Toxic

PGK: Packaging Instruction

PNEC: Predicted No Effect Concentration.

PSG: Passengers

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

STEL: Short Term Exposure limit.

STOT: Specific Target Organ Toxicity.

TLV: Threshold Limiting Value.

TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).

vPvB: Very Persistent, Very Bioaccumulative.

WGK: German Water Hazard Class.

Paragraphs modified from the previous revision:

- SECTION 1: Identification of the substance/mixture and of the company/undertaking
- SECTION 2: Hazards identification
- SECTION 3: Composition/information on ingredients
- SECTION 4: First aid measures
- SECTION 5: Firefighting measures
- SECTION 6: Accidental release measures
- SECTION 7: Handling and storage
- SECTION 8: Exposure controls/personal protection
- SECTION 9: Physical and chemical properties
- SECTION 10: Stability and reactivity
- SECTION 11: Toxicological information
- SECTION 12: Ecological information
- SECTION 13: Disposal considerations
- SECTION 14: Transport information
- SECTION 15: Regulatory information