

Safety Data Sheet

SEFLOW UHS HARDENER FAST



Safety Data Sheet dated 01/01/2025

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

- 1.1. Product identifier
Mixture identification:
Trade code and name: SEFLOW UHS HARDENER FAST
UFI: 2469-V3DY-H00E-75W8
- 1.2. Relevant identified uses of the substance or mixture and uses advised against
Acrylic hardener for 2K clearcoat for autobody use.
Only for professional use.
- 1.3. Details of the supplier of the safety data sheet
Company:
Automotive Paint Systems Ltd
Unit 14 Tonge Bridge Industrial Estate, Tonge Bridge Way Bolton
Tel: +44 01204 393 332
Competent person responsible for the safety data sheet:
automotivepaintsystems@yahoo.co.uk
- 1.4. Emergency telephone number
NHS 111

SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture
EC regulation criteria 1272/2008 (CLP)
 - ⚠ Danger, Flam. Liq. 2, Highly flammable liquid and vapour.
 - ⚠ Warning, Acute Tox. 4, Harmful if inhaled.
 - ⚠ Warning, Eye Irrit. 2, Causes serious eye irritation.
 - ⚠ Warning, Skin Sens. 1, May cause an allergic skin reaction.
 - ⚠ Warning, Carc. 2, Suspected of causing cancer.
 - ⚠ Warning, STOT SE 3, May cause respiratory irritation.
 - ⚠ Warning, STOT SE 3, May cause drowsiness or dizziness.
 - Aquatic Chronic 3, Harmful to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:
No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

- H225 Highly flammable liquid and vapour.
- H332 Harmful if inhaled.
- H319 Causes serious eye irritation.
- H317 May cause an allergic skin reaction.
- H351 Suspected of causing cancer.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H412 Harmful to aquatic life with long lasting effects.

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Precautionary statements:

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from open flames - No smoking..
- P260 Do not breathe vapours or spray.
- P280.D Wear protective gloves and clothing and eye protection.
- P370+P378 In case of fire, use a dry powder, foam, CO2 fire extinguisher to extinguish.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Special Provisions:

EUH204 Contains isocyanates. May produce an allergic reaction.

Contains

Hexamethylene diisocyanate oligomers, Isocyanurates
 4-methylpentan-2-one
 ethyl acetate
 n-butyl acetate
 tosyl isocyanate: May produce an allergic reaction.

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

None

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration $\geq 0.1\%$

Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

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

Qty	Name	Ident. Number	Classification
$\geq 50\%$ - $< 60\%$	Hexamethylene diisocyanate oligomers, Isocyanurates	CAS: 28182-81-2 EC: 931-274-8 REACH No.: 01-2119485796-17	⚠ 3.1/4/Inhal Acute Tox. 4 H332 ⚠ 3.4.2/1 Skin Sens. 1 H317 ⚠ 3.8/3 STOT SE 3 H335
$\geq 30\%$ - $< 40\%$	4-methylpentan-2-one	Index number: 606-004-00-4 CAS: 108-10-1 EC: 203-550-1 REACH No.: 01-2119473980-30	⚠ 2.6/2 Flam. Liq. 2 H225 ⚠ 3.6/2 Carc. 2 H351 ⚠ 3.1/4/Inhal Acute Tox. 4 H332 ⚠ 3.8/3 STOT SE 3 H336 ⚠ 3.3/2 Eye Irrit. 2 H319 EUH066 Acute Toxicity Estimate: ATE - Inhalation (Vapours) 11 mg/l
$\geq 5\%$ - $< 7\%$	ethyl acetate	Index number: 607-022-00-5 CAS: 141-78-6 EC: 205-500-4 REACH No.: 01-2119475103-46	⚠ 2.6/2 Flam. Liq. 2 H225 ⚠ 3.3/2 Eye Irrit. 2 H319 ⚠ 3.8/3 STOT SE 3 H336 EUH066
$\geq 3\%$ - $< 5\%$	n-butyl acetate	Index number: 607-025-00-1 CAS: 123-86-4 EC: 204-658-1 REACH No.: 01-	⚠ 2.6/3 Flam. Liq. 3 H226 ⚠ 3.8/3 STOT SE 3 H336 EUH066

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		2119485493-29	
>= 3% - < 5%	Naphtha - hydrocarbons C9 aromatics	EC: 918-668-5 REACH No.: 01- 2119455851- 35	2.6/3 Flam. Liq. 3 H226 3.10/1 Asp. Tox. 1 H304 3.8/3 STOT SE 3 H335 3.8/3 STOT SE 3 H336 4.1/C2 Aquatic Chronic 2 H411 EUH066
>= 0.25% - < 0.5%	tosyl isocyanate	Index number: 615-012-00-7 CAS: 4083-64-1 EC: 223-810-8	3.3/2 Eye Irrit. 2 H319 3.8/3 STOT SE 3 H335 3.2/2 Skin Irrit. 2 H315 3.4.1/1-1A-1B Resp. Sens. 1,1A, 1B H334 EUH014 Specific Concentration Limits: C >= 5%: Eye Irrit. 2 H319 C >= 5%: STOT SE 3 H335 C >= 5%: Skin Irrit. 2 H315
>= 0.1% - < 0.25%	2,6-di-tert-butyl-4-methylphenol	CAS: 128-37-0 EC: 204-881-4 REACH No.: 01- 2119565113- 46	4.1/A1 Aquatic Acute 1 H400 4.1/C1 Aquatic Chronic 1 H410

All component substances of this product have been registered under REACH or are exempt from REACH registration.
Substances in Section 3 not showing REACH registration codes are exempt from registration.

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. If irritation persists: Get medical advice/attention.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose of 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 at least 15 minutes, then consult a medic immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Ventilate the premises. The patient is to be removed immediately from the contaminated premises to rest in a well-ventilated area. OBTAIN MEDICAL ATTENTION.

If breathing is irregular or stopped, administer artificial respiration.

In case of inhalation, consult a doctor immediately and show him packing or label.

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

See section 11 for known symptoms and effects.

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

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safety data sheet if possible).

Treatment:

None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

In case of fire, use a dry powder, foam, CO2 fire extinguisher to extinguish.

Extinguishing media which must not be used for safety reasons:

Do not use water jets. Water may not be effective firefighting measure, however it can be used to cool closed

containers close to flames as to avoid bursting and exploding.

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke. Carbon oxides.

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.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow it to enter into soil/subsoil. Do not allow IT 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

Contain spillage, and then collect with non-combustible

absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.

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.

Exercise the greatest care when handling or opening the container.

Use localized ventilation system.

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.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

7.2. Conditions for safe storage, including any incompatibilities

Always keep in a well-ventilated place.

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Store at below 20 °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.

Keep away from food, drink and feed.

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

7.3. Specific end use(s)

See Point 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hexamethylene diisocyanate oligomers, Isocyanurates - CAS: 28182-81-2

EU - STEL: 1 mg/m³

4-methylpentan-2-one - CAS: 108-10-1

Italy - TWA(8h): 83 mg/m³, 20 ppm - STEL(): 208 mg/m³, 50 ppm

ACGIH - TWA(8h): 20 ppm - STEL: 75 ppm - Notes: A3, BEI - URT irr, dizziness, headache

EU - TWA(8h): 83 mg/m³, 20 ppm - STEL: 208 mg/m³, 50 ppm

ethyl acetate - CAS: 141-78-6

EU - TWA(8h): 734 mg/m³, 200 ppm - STEL: 1468 mg/m³, 400 ppm

ACGIH - TWA(8h): 400 ppm - Notes: URT and eye irr

n-butyl acetate - CAS: 123-86-4

EU - TWA(8h): 241 mg/m³, 50 ppm - STEL: 723 mg/m³, 150 ppm

ACGIH - TWA(8h): 50 ppm - STEL: 150 ppm - Notes: Eye and URT irr

Naphtha - hydrocarbons C9 aromatics

EU - TWA(8h): 100 mg/m³, 19 ppm

2,6-di-tert-butyl-4-methylphenol - CAS: 128-37-0

ACGIH - TWA(8h): 2 mg/m³ - Notes: (IFV), A4 - URT irr

DNEL Exposure Limit Values

Hexamethylene diisocyanate oligomers, Isocyanurates - CAS: 28182-81-2

Worker Professional: 1 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects

Worker Professional: 0.5 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

4-methylpentan-2-one - CAS: 108-10-1

Worker Professional: 83 mg/m³ - Consumer: 14.7 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Professional: 208 mg/m³ - Consumer: 115.2 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects

Worker Professional: 83 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

Worker Professional: 208 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects

Worker Professional: 11.8 mg/kg - Consumer: 4.2 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

ethyl acetate - CAS: 141-78-6

Worker Professional: 1468 mg/m³ - Consumer: 734 mg/kg - Exposure: Human Inhalation - Frequency: Short Term, systemic effects

Consumer: 4.5 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

Worker Professional: 734 mg/m³ - Consumer: 367 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

Worker Professional: 1468 mg/m³ - Consumer: 734 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects

Worker Professional: 63 mg/kg - Consumer: 37 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Worker Professional: 734 mg/m³ - Consumer: 367 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

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n-butyl acetate - CAS: 123-86-4

Consumer: 102.34 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

Worker Professional: 960 mg/m³ - Consumer: 859.7 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects

Worker Professional: 960 mg/m³ - Consumer: 859.7 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects

Worker Professional: 480 mg/m³ - Consumer: 102.34 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Professional: 480 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

Naphtha - hydrocarbons C9 aromatics

Worker Professional: 25 mg/kg - Consumer: 11 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Worker Professional: 150 mg/m³ - Consumer: 32 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Consumer: 11 mg/m³ - Exposure: Human Oral - Frequency: Long Term, systemic effects

2,6-di-tert-butyl-4-methylphenol - CAS: 128-37-0

Worker Industry: 5.8 mg/m³ - Consumer: 1.74 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Industry: 8.3 mg/kg - Consumer: 5 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

Hexamethylene diisocyanate oligomers, Isocyanurates - CAS: 28182-81-2

Target: Fresh Water - Value: 127 µg/L

Target: Marine water - Value: 12.7 µg/L

Target: Fresh water (intermittent emissions) - Value: 1270 µg/L

Target: Freshwater sediments - Value: 266.7 g/kg

Target: Soil - Value: 53.2 g/kg

Target: STP - Value: 38.28 mg/l - Notes: OECD 209

4-methylpentan-2-one - CAS: 108-10-1

Target: Soil - Value: 1.3 mg/kg

Target: Freshwater sediments - Value: 8.27 mg/kg

Target: Marine water sediments - Value: 0.83 mg/kg

Target: Fresh Water - Value: 0.6 mg/l

Target: Marine water - Value: 0.06 mg/l

Target: Intermittent emissions - Value: 1.5 mg/l

Target: Purification plant - Value: 27.5 mg/l

ethyl acetate - CAS: 141-78-6

Target: Fresh Water - Value: 0.26 mg/l

Target: Marine water - Value: 0.026 mg/l

Target: Intermittent emissions - Value: 1.65 mg/l

Target: Purification plant - Value: 650 mg/l

Target: Freshwater sediments - Value: 1.25 mg/kg

Target: Marine water sediments - Value: 0.125 mg/kg

Target: Soil - Value: 0.24 mg/kg

Target: Oral - Value: 0.2 g/kg

n-butyl acetate - CAS: 123-86-4

Target: STP - Value: 35.6 mg/l

Target: Fresh Water - Value: 0.18 mg/l

Target: Marine water - Value: 0.01 mg/l

Target: Intermittent emissions - Value: 0.36 mg/l

Target: Freshwater sediments - Value: 0.98 mg/kg

Target: Marine water sediments - Value: 0.09 mg/kg

Target: Soil - Value: 0.09 mg/kg

2,6-di-tert-butyl-4-methylphenol - CAS: 128-37-0

Target: Intermittent emissions - Value: 0.004 mg/l

Target: Fresh Water - Value: 0.004 mg/l

Target: Soil - Value: 1.04 mg/kg

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Target: Purification plant - Value: 100 mg/l
 Target: Freshwater sediments - Value: 1.29 mg/kg
 Target: Secondary poisoning - Value: 16.7 mg/kg
 Target: Marine water - Value: 0.004 mg/l

Biological Exposure Index

4-methylpentan-2-one - CAS: 108-10-1

Value: 1 mg/L - medium: Urine - Biological Indicator: Ketone (s) - Sampling Period: End of turn

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles and/or visor conforming to BS 2092 GRADE 1).

Protection for skin:

Wear safety clothing that ensure full skin protection in accordance to EN 14605 Type 4 in case of spills or spray (e.g. Tyrek). Please note: safety clothing must be changed immediately if it comes in contact with product.

Protection for hands:

Use protective gloves that provides comprehensive protection, EN374 Class 3 (B-F-I).
 Permeation time > 60 minutes; 0.4 mm thickness.

Respiratory protection:

Use respiratory protection where ventilation is insufficient or exposure is prolonged.
 Use adequate protective respiratory devices, using Filter "A" (Brown colour) for organic gas and vapors with boiling points over 65°C.

Thermal Hazards:

None

Environmental exposure controls:

Emissions from ventilation systems or from work processes must be checked as to ensure compliance to environmental protection legislation. In some cases, the addition of vapour scrubbers, filters or other system modification may be necessary in order to reduce emissions to acceptable levels.

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes
Physical state:	Liquid	--	--
Colour:	Colourless	--	--
Odour:	Typical del solvente	--	--
Odour threshold:	N.D.	--	--
Melting point/freezing point:	-25 °C	--	--
Boiling point or initial boiling point and boiling range:	77°C	--	--
Flammability:	Flam. Liq. 2, H225	--	--
Lower and upper explosion limit:	N.D.	--	--
Flash point:	-4 °C	--	--

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Auto-ignition temperature:	427°C	--	--
Decomposition temperature:	N.D.	--	--
pH:	Not Relevant	--	--
Kinematic viscosity:	> 20,5 mm ² /sec (40 °C)	--	--
Solubility in water:	Insoluble	--	--
Solubility in oil:	N.D.	--	--
Partition coefficient n-octanol/water (log value):		--	--
Vapour pressure:	98 hPa	--	--
Density and/or relative density:	0.986 g/cm ³	--	--
Relative vapour density:	3,4 (air = 1)	--	--
Particle characteristics:			
Particle size:	N.A.	--	--

9.2. Other information

Properties	Value	Method:	Notes
Explosive properties:	N.D.	--	--
Evaporation rate:	N.D.	--	--
Viscosity:	> 20,5 mm ² /s (40°C)	--	--
Oxidizing properties:	N.D.	--	--

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under recommended use and storage conditions (see point 7).

10.3. Possibility of hazardous reactions

It may generate flammable gases on contact with elementary metals (alkalis and alkaline earth, alloys in powder or vapours) and powerful reducing agents.

It may generate toxic gases on contact with oxidising mineral acids, and powerful oxidising agents.

It may catch fire on contact with oxidising mineral acids, and powerful oxidising agents.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid accumulating electrostatic charge.

Stable under normal conditions.

10.5. Incompatible materials

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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 product:

N.A.

Toxicological information of the main substances found in the product:

Hexamethylene diisocyanate oligomers, Isocyanurates - CAS: 28182-81-2

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 2500 mg/kg

Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg

Test: LC50 - Route: Inhalation Vapour - Species: Rat = 0.39 mg/kg - Duration: 4h

d) respiratory or skin sensitisation:

Test: Skin Sensitization - Route: Skin Yes

4-methylpentan-2-one - CAS: 108-10-1

a) acute toxicity:

Test: LC50 - Route: Inhalation - Species: Mouse = 23.29 g/m³

ATE - Inhalation (Vapours) 11 mg/l

Test: LD50 - Route: Oral - Species: Rat = 2080 mg/kg

ATE - Inhalation (Vapours) 11 mg/l

Test: LD50 - Route: Skin - Species: Rat = 2000 g/kg

ATE - Inhalation (Vapours) 11 mg/l

i) STOT-repeated exposure:

Test: NOAEL(C) - Route: Inhalation - Species: Rat > 250 mg/kg

ethyl acetate - CAS: 141-78-6

a) acute toxicity:

Test: LC50 - Route: Inhalation - Species: Rat = 1600 mg/l

Test: LD50 - Route: Oral - Species: Rabbit = 4935 mg/kg

Test: LD50 - Route: Oral - Species: Rat = 11.3 g/kg

n-butyl acetate - CAS: 123-86-4

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 6400 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit > 5000 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat = 21.1 mg/l - Duration: 4h

Naphtha - hydrocarbons C9 aromatics

a) acute toxicity:

Test: LC50 - Route: Inhalation - Species: Rat > 6193 mg/m³ - Source: OECD 403

Test: LD50 - Route: Oral - Species: Rat = 3492 mg/kg - Source: OECD 401

Test: LD50 - Route: Skin - Species: Rabbit > 3160 mg/kg - Source: OECD 402

tosyl isocyanate - CAS: 4083-64-1

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 2234 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat = 640 ppm - Duration: 1h

2,6-di-tert-butyl-4-methylphenol - CAS: 128-37-0

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg

Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat > 5 mg/l - Duration: 4h

Hexamethylene diisocyanate oligomers, Isocyanurates - CAS: 28182-81-2

Local effects:

High vapour concentrations may cause irritation to respiratory system.

May cause slight skin irritation with prolonged or repeated contact.

May cause eye irritation.

Sensitization:

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Considered as skin sensitizing.

n-butyl acetate - CAS: 123-86-4

Components of the product can be absorbed by the body by inhalation. Main symptoms: Dizziness, narcosis, Cough, nausea, vomiting, headache, unconsciousness, shortness of breath. Repeated exposure can cause skin dryness and cracking.

Naphtha - hydrocarbons C9 aromatics -

Inhalation: Vapor concentrations above recommended exposure levels are irritating to the eyes and respiratory tract, may cause headaches and dizziness, are anesthetic and may cause other central nervous system effects. Contact with the skin: Low index of toxicity. Frequent or prolonged contact can dry the skin favoring the onset of dermatitis. Eye Contact: May cause slight eye discomfort with mild irritation but does not damage eye tissue. Ingestion: even small quantities of liquid introduced into the respiratory system during ingestion or by vomiting, can cause bronchopneumonia or pulmonary edema. minimal index of toxicity.

If not differently specified, the information required in Regulation (EU)2020/878 listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration $\geq 0.1\%$

SECTION 12: Ecological information

12.1. Toxicity

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

Hexamethylene diisocyanate oligomers, Isocyanurates - CAS: 28182-81-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 8.9 mg/l

Endpoint: LC50 - Species: Daphnia = 127 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae > 1000 mg/l

4-methylpentan-2-one - CAS: 108-10-1

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia > 200 mg/l - Duration h: 48

Endpoint: LC50 - Species: Fish > 179 mg/l - Duration h: 96

Endpoint: NOEC - Species: Daphnia = 30 mg/l

Endpoint: NOEC - Species: Algae > 146 mg/l

ethyl acetate - CAS: 141-78-6

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 230 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia = 165 mg/l - Duration h: 48

Endpoint: NOEC - Species: Algae > 100 mg/l - Duration h: 72

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Daphnia = 2.4 mg/l - Duration h: 504

c) Bacteria toxicity:

Endpoint: EC50 - Species: Bacteria = 5870 mg/l - Duration h: 0.25

n-butyl acetate - CAS: 123-86-4

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia = 44 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae = 648 mg/l - Duration h: 72

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Endpoint: LC50 - Species: Fish = 18 mg/l - Duration h: 96

Naphtha - hydrocarbons C9 aromatics

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia = 3.2 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae = 2.9 mg/l - Duration h: 72

Endpoint: LC50 - Species: Fish = 9.2 mg/l - Duration h: 96

Endpoint: EC50 - Species: Algae = 1 mg/l - Duration h: 72 - Notes: NOELR

2,6-di-tert-butyl-4-methylphenol - CAS: 128-37-0

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia = 0.61 mg/l

Endpoint: EC50 - Species: Algae > 0.42 mg/l - Duration h: 72

Endpoint: LC50 - Species: Fish > 0.57 mg/l - Duration h: 96

Endpoint: NOEC - Species: Daphnia = 0.31 mg/l - Duration h: 21

12.2. Persistence and degradability

Non-readily biodegradable

12.3. Bioaccumulative potential

Not bioaccumulative

12.4. Mobility in soil

Do not mix with waste water, rain or surface water. Floats on water, evaporates from liquid and solid surfaces but a significant amount may penetrate and pollute water table.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Endocrine disrupting properties

No endocrine disruptor substances present in concentration $\geq 0.1\%$

12.7. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

The empty containers must be considered special waste materials to take to dump of type 2B. If previously cleansed, they can be admitted in first class dumps.

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. DO NOT discharge into sewers, watercourses, ponds, canals or ditches. Empty product containers must be completely drained and stored safely until appropriately processes or disposed. Empty containers must be recycled, recovered or disposed of by a qualified and authorized company operating in compliance with current recycling, recovery and disposal regulations. It is advisable to provide the disposal company with all safety information of the material contained in the empty packaging. DO NOT pressurize, DO NOT cut, DO NOT weld, DO NOT puncture, DO NOT crush, DO NOT expose empty containers to heat, flames, sparks, electrostatic discharge or other sources of ignition.

SECTION 14: Transport information



Limited quantities, not subject to ADR norms for internal packaging of up to 5 liters and maximum packaging of 30kg.

14.1. UN number or ID number

ADR-UN Number: 1263

IATA-UN Number: 1263

IMDG-UN Number: 1263

14.2. UN proper shipping name

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ADR-Shipping Name:	PAINT
IATA-Shipping Name:	PAINT
IMDG-Shipping Name:	PAINT
14.3. Transport hazard class(es)	
ADR-Class:	3
ADR-Label:	3
ADR - Hazard identification number:	33
IATA-Class:	3
IATA-Label:	3
IMDG-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	
ADR-Environmental Pollutant:	No
IMDG-Marine pollutant:	No
IMDG-EmS:	F-E , S-E
14.6. Special precautions for user	
ADR-Subsidiary hazards:	-
ADR-S.P.:	163 367 640C 650
ADR-Transport category (Tunnel restriction code):	2 (D/E)
IATA-Passenger Aircraft:	353
IATA-Subsidiary hazards:	-
IATA-Cargo Aircraft:	364
IATA-S.P.:	A3 A72 A192
IATA-ERG:	3L
IMDG-Subsidiary hazards:	-
IMDG-Stowage and handling:	Category B
IMDG-Segregation:	-
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. 2020/878
 - 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. 2015/1221 (ATP 7 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)

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Regulation (EU) n. 2022/692 (ATP 18 CLP)

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:

Restriction 3

Restriction 40

Restrictions related to the substances contained:

Restriction 20

Restriction 30

Restriction 74

Restriction 75

Volatile Organic compounds - VOCs = 448.30 g/Kg = 442.52 g/l

Volatile CMR substances = 0.00 %

Halogenated VOCs which are assigned the risk phrase R40 = 0.00 %

Organic Carbon - C = 0.28

Dry weight (% wt): 55.17

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

Product belongs to category: P5c

15.2. Chemical safety assessment

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

SECTION 16: Other information

Full text of phrases referred to in Section 3:

H332 Harmful if inhaled.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H225 Highly flammable liquid and vapour.

H351 Suspected of causing cancer.

H336 May cause drowsiness or dizziness.

H319 Causes serious eye irritation.

EUH066 Repeated exposure may cause skin dryness or cracking.

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects.

H315 Causes skin irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

EUH014 Reacts violently with water.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Hazard class and hazard category	Code	Description
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
Asp. Tox. 1	3.10/1	Aspiration hazard, Category 1

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Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Resp. Sens. 1,1A,1B	3.4.1/1-1A-1B	Respiratory Sensitisation, Category 1,1A,1B
Skin Sens. 1	3.4.2/1	Skin Sensitisation, Category 1
Carc. 2	3.6/2	Carcinogenicity, Category 2
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) aquatic hazard, category 1
Aquatic Chronic 2	4.1/C2	Chronic (long term) aquatic hazard, category 2
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

This safety data sheet has been completely updated in compliance to Regulation 2020/878. 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
Flam. Liq. 2, H225	On basis of test data
Acute Tox. 4, H332	Calculation method
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1, H317	Calculation method
Carc. 2, H351	Calculation method
STOT SE 3, H335	Calculation method
STOT SE 3, H336	Calculation method
Aquatic Chronic 3, H412	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,
Commission of the European Communities
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van
Nostrand Reinold

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.

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

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ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
N.A.:	Not available
N.D.:	Not determined.
PNEC:	Predicted No Effect Concentration.
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.
TWA:	Time-weighted average