SAFETY DATA SHEET ACCORDING TO REGULATION (EC) 1907/2006

Product name: Stonder Hardener Ceramic

Creation date: 27.03.2023, Revision: 27.03.2023, version: 1.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name
Stonder Hardener Ceramic

Product code
[80950 UFI:XX57-370Y-600C-58EF]

https://my.chemius.net/p/NSUJE7/en/pd/en

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

Relevant identified uses
Universal hardener for acrylic and polyurethane paints of all kinds with an indication of dedicated clearcoat. For Professional use in Car Refinish.

Uses advised against
The product should not be used in ways other than those referred in Section 1.

1.3 Details of the supplier of the safety data sheet

Supplier
Rags LTD
Džūkstes str.1
LV-1004 Riga, Latvia
+37167808780
rags&rags.lv

1.4 Emergency Telephone Number

Emergency
112

Supplier
+37167808780

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)
Flam. Liq. 3; H226 Flammable liquid and vapour.
Asp. Tox. 1; H304 May be fatal if swallowed and enters airways.
Skin Irrit. 2; H315 Causes skin irritation.
Skin Sens. 1; H317 May cause an allergic skin reaction.
Eye Irrit. 2; H319 Causes serious eye irritation.
Acute Tox. 4; H332 Harmful if inhaled.
STOT SE 3; H335 May cause respiratory irritation.
STOT SE 3; H336 May cause drowsiness or dizziness.
STOT RE 2; H373 May cause damage to organs through prolonged or repeated exposure.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Signal word: DANGER

H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.
EUH204 Contains isocyanates. May produce an allergic reaction.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P331 Do NOT induce vomiting.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P405 Store locked up.
P501 Dispose of contents/container in accordance with national regulation.

Contains:
1,6-hexamethylene diisocianate homopolymer
xylene
n-butyl acetate
ethylbenzene
hexamethylene-di-isocyanate

2.3 Other hazards

PBT/vPvB
No information.

Endocrine disrupting properties
No information.

Additional information
No information.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

For mixtures see 3.2.

3.2 Mixtures

Name	CAS EC Index Reach	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Conc. Limits	Notes for substances
1,6-hexamethylene diisocianate homopolymer	28182-81-2 500-060-2 -	30-60	Skin Sens. 1; H317 Acute Tox. 4; H332 STOT SE 3; H335	/	/

xylene	1330-20-7 215-535-7 601-022-00-9	15-30	Flam. Liq. 3; H226 Asp. Tox. 1; H304 Acute Tox. 4; H312 + H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 STOT RE 2; H373	/	C
n-butyl acetate	123-86-4 204-658-1 607-025-00-1	20-30	Flam. Liq. 3; H226 STOT SE 3; H336 EUH066	/	/
2-methoxy-1-methylethyl acetate	108-65-6 203-603-9 607-195-00-7	5-10	Flam. Liq. 3; H226	/	/
ethylbenzene	100-41-4 202-849-4 601-023-00-4	5-10	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Acute Tox. 4; H332 STOT RE 2; H373 Aquatic Chronic 3; H412	/	/
hexamethylene-di-isocyanate	822-06-0 212-485-8 615-011-00-1	0.01-0.1	Skin Irrit. 2; H315 Skin Sens. 1; H317 Eye Irrit. 2; H319 Acute Tox. 3; H331 Resp. Sens. 1; H334 STOT SE 3; H335	Skin Sens. 1; H317; C ≥ 0.5% Resp. Sens. 1; H334; C ≥ 0.5%	/

Notes for substances

C	Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General notes

Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency. When in doubt or if feeling unwell seek medical assistance. Show the safety data sheet and label to the physician. 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. When it is suspected, that there may still be harmful vapours/fumes present in the air, respiratory protection (mask; self contained breathing apparatus) must be used. Wash contaminated clothing with water before removing or use gloves.

Following inhalation

Remove patient to fresh air - move out of dangerous area. In case of unconsciousness bring patient into stable side position and seek medical attention. If breathing is irregular or respiratory arrest occurs provide artificial respiration. Keep at rest in a position comfortable for breathing. Seek medical help immediately.

Following skin contact

Take off all contaminated clothing. Areas of the body that have come into contact with the product must be rinsed with water. Consult a physician.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. Seek medical help.

Following ingestion

Do not induce vomiting! Aspiration hazard if swallowed. Can enter lungs and cause damage. If vomiting occurs, the patient should hold the head lower than the hips, because it reduces the possibility of aspiration. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Immediately consult a doctor. Show the physician the safety data sheet or label.

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation
Can cause irritation of respiratory system. Symptoms include: headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, unconsciousness. Coughing, sneezing, nasal discharge, labored breathing. Vapours may cause drowsiness and dizziness. Harmful.

Following skin contact
Itching, redness, pain. May cause sensitisation by skin contact (itching, redness, rashes).

Following eye contact
Redness, tearing, pain.

Following ingestion
May cause nausea/vomiting and diarrhea. May cause abdominal discomfort. Irritates mucous membranes in the mouth, throat, esophagus and in gastrointestinal area. Aspiration into the lungs causes coughing, shortness of breath and may lead to chemical pneumonia.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. After the product has been ingested vomiting can cause aspiration into the lungs. Because of the risk of aspiration, induction of vomiting and gastric lavage should be avoided.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam.

Unsuitable extinguishing media
Full water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
In case of a fire toxic gases can be generated; do not inhale gases/smoke.

5.3 Advice for firefighters

Protective actions
In case of fire or heating do not breathe fumes/vapours. No action shall be taken involving any personal risk or without suitable training. Prolonged heating can cause an explosion. Vapours can form explosive mixtures with air. Cool containers at risk with water spray. If possible remove containers from endangered area.

Special protective equipment for fire-fighters
Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (BS EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (BS EN 137).

Additional information
No information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Protective equipment
No information.

Precautionary measures
Ensure adequate ventilation. Keep away from sources of ignition and/or heat; No smoking!

Emergency procedures

No action shall be taken involving any personal risk or without suitable training. Prevent access to unprotected personnel. Evacuate the danger zone. Do not breathe vapour or mist. Avoid contact with skin, eyes and clothing.

For emergency responders

Use personal protective equipment.

6.2 Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. In case of release into the environment, inform the relevant authorities.

6.3 Methods and material for containment and cleaning up

For containment

Stem the spill if this does not pose risks.

For cleaning up

Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor. Use only explosion-proof instruments and equipment. Use spark-proof tools. Prevent release into the sewer, water, basements or confined areas. Ventilate the premises. Clean contaminated area with plenty of water.

OTHER INFORMATION

No information.

6.4 Reference to other sections

See also sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Protective measures

Measures to prevent fire

Ensure adequate ventilation. Keep away from sources of ignition - no smoking. Use spark-proof tools. Take precautionary measures against static discharges. Vapours are heavier than air and spread along the floor. They form explosive mixtures with air.

Measures to prevent aerosol and dust generation

Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

Measures to protect the environment

Do not discharge into drains, surface water and soil. After use immediately close container tightly.

Other measures

No information.

Advice on general occupational hygiene

Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Do not breathe vapours/mist. Avoid contact with skin, eyes and clothes. Remove contaminated clothes and wash them before reuse. Wear suitable protective equipment; see Section 8.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep in a cool, dry and well ventilated place. Protect from open fire, heat and direct sunlight. Keep away from food, drink and animal feeding stuffs. Keep away from oxidising substances. Keep away from sources of ignition - no smoking.

Packaging materials

Store only in original container.

Requirements for storage rooms and vessels

Close opened containers after use. Put the containers upright to prevent from leaking. Do not store in unlabelled containers.

Storage class

No information.

Further information on storage conditions

No information.

7.3 Specific end use(s)

Recommendations

No information.

Industrial sector specific solutions

No information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limit values

Name	mg/m³	ml/m³	Short-term value mg/m³	Short-term value ml/m³	Remark	Biological Tolerance Values
Ethylbenzene (100-41-4)	441	100	552	125	Sk	/
Xylene, o-,m-,p- or mixed isomers (1330-20-7)	220	50	441	100	Sk, BMGV	650 mmol methyl hippuric acid/mol creatinine in urine - Post shift 650 mmol methyl hippuric acid/mol creatinine in urine - Post shift 650 mmol methyl hippuric acid/mol creatinine in urine - Post shift
Isocyanates, all (as –NCO) Except methyl isocyanate	0.02	/	0.07	/	Sen	1 µmol isocyanate-derived diamine/mol creatinine in urine - At the end of the period of exposure
1-Methoxypropyl acetate (108-65-6)	274	50	548	100	Sk	/
Butyl acetate (123-86-4)	724	150	966	200	/	/

Information on monitoring procedures

BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values. BS EN 482:2021 Workplace exposure. Procedures for the determination of the concentration of chemical agents. Basic performance requirements.

DNEL/DMEL values

For product

No information.

For components

Name	Type	Exposure route	exp. frequency	Remark	value
1,6-hexamethylene diisocianate homopolymer	Worker	inhalation	long term local effects	/	0.5 mg/m³
1,6-hexamethylene diisocianate homopolymer	Worker	inhalation	short term local effects	/	1 mg/m³
n-butyl acetate	Worker	inhalation	long term systemic effects	/	300 mg/m³
n-butyl acetate	Worker	inhalation	short term systemic effects	/	600 mg/m³

n-butyl acetate	Worker	inhalation	long term local effects	/	300 mg/m³
n-butyl acetate	Worker	inhalation	short term local effects	/	600 mg/m³
n-butyl acetate	Worker	dermal	long term systemic effects	/	11 mg/kg bw/day
n-butyl acetate	Worker	dermal	short term systemic effects	/	11 mg/kg bw/day
n-butyl acetate	Consumer	inhalation	long term systemic effects	/	35.7 mg/m³
n-butyl acetate	Consumer	inhalation	short term systemic effects	/	300 mg/m³
n-butyl acetate	Consumer	inhalation	long term local effects	/	35.7 mg/m³
n-butyl acetate	Consumer	inhalation	short term local effects	/	300 mg/m³
n-butyl acetate	Consumer	dermal	long term systemic effects	/	6 mg/kg bw/day
n-butyl acetate	Consumer	dermal	short term systemic effects	/	6 mg/kg bw/day
n-butyl acetate	Consumer	oral	long term systemic effects	/	2 mg/kg bw/day
n-butyl acetate	Consumer	oral	short term systemic effects	/	2 mg/kg bw/day
2-methoxy-1-methylethyl acetate	Worker	inhalation	long term systemic effects	/	275 mg/m³
2-methoxy-1-methylethyl acetate	Worker	inhalation	short term local effects	/	550 mg/m³
2-methoxy-1-methylethyl acetate	Worker	dermal	long term systemic effects	/	796 mg/kg bw/day
2-methoxy-1-methylethyl acetate	Consumer	inhalation	long term systemic effects	/	33 mg/m³
2-methoxy-1-methylethyl acetate	Consumer	inhalation	long term local effects	/	33 mg/m³
2-methoxy-1-methylethyl acetate	Consumer	dermal	long term systemic effects	/	320 mg/kg bw/day
2-methoxy-1-methylethyl acetate	Consumer	oral	long term systemic effects	/	36 mg/kg bw/day
2-methoxy-1-methylethyl acetate	Consumer	oral	short term systemic effects	/	500 mg/kg bw/day
hexamethylene-di-isocyanate	Worker	inhalation	long term systemic effects	/	0.035 mg/m³
hexamethylene-di-isocyanate	Worker	inhalation	long term local effects	/	0.035 mg/m³
hexamethylene-di-isocyanate	Worker	inhalation	short term systemic effects	/	0.07 mg/m³

PNEC values

For product

No information.

For components

Name	Exposure route	Remark	value
1,6-hexamethylene diisocianate homopolymer	fresh water	/	0.127 mg/L
1,6-hexamethylene diisocianate homopolymer	water, intermittent release	/	1.27 mg/L
1,6-hexamethylene diisocianate homopolymer	marine water	/	0.013 mg/L
1,6-hexamethylene diisocianate homopolymer	water treatment plant	/	88 mg/L
1,6-hexamethylene diisocianate homopolymer	fresh water sediment	dry weight	266701 mg/kg

1,6-hexamethylene diisocianate homopolymer	marine water sediment	dry weight	26670 mg/kg
1,6-hexamethylene diisocianate homopolymer	soil	dry weight	53183 mg/kg
n-butyl acetate	fresh water	/	0.18 mg/L
n-butyl acetate	water, intermittent release	/	0.36 mg/L
n-butyl acetate	marine water	/	0.018 mg/L
n-butyl acetate	water treatment plant	/	35.6 mg/L
n-butyl acetate	fresh water sediment	dry weight	0.981 mg/kg
n-butyl acetate	marine water sediment	dry weight	0.098 mg/kg
n-butyl acetate	soil	dry weight	0.09 mg/kg
2-methoxy-1-methylethyl acetate	fresh water	/	0.635 mg/L
2-methoxy-1-methylethyl acetate	water, intermittent release	/	6.35 mg/L
2-methoxy-1-methylethyl acetate	marine water	/	0.064 mg/L
2-methoxy-1-methylethyl acetate	water treatment plant	/	100 mg/L
2-methoxy-1-methylethyl acetate	fresh water sediment	dry weight	3.29 mg/kg
2-methoxy-1-methylethyl acetate	marine water sediment	dry weight	0.329 mg/kg
2-methoxy-1-methylethyl acetate	soil	dry weight	0.29 mg/kg
hexamethylene-di-isocyanate	soil	/	0.0026 mg/kg
hexamethylene-di-isocyanate	fresh water	/	0.0774 mg/L

8.2 Exposure controls

Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothes. Do not eat, drink or smoke while working. Do not breathe vapours/aerosols.

Structural measures to prevent exposure

No information.

Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in areas with increased concentration. Keep away from food, drink and animal feeding stuffs.

Personal protective equipment

Eye and face protection

Safety glasses with side protection (BS EN ISO 16321-1:2022).

Hand protection

Protective gloves (EN 374). Observe the manufacturer's instructions regarding the use, storage, maintenance and replacement of gloves. In case of damage or at the first signs of wear and tear, change the gloves immediately. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. The penetration time is determined by the protective glove manufacturer and must be observed.

Appropriate materials

Skin protection

Protective antistatic clothing EN 1149 (1:2006, 2:1998 and 3:2004, 5:2008), protective antistatic shoes (EN 20345:2012). At high risk of skin exposure chemical suits (BS EN ISO 6530:2005) and boots may be required (BS EN ISO 20345:2022).

Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection. Wear suitable protective breathing mask (EN 136) with filter A2-P2 (EN 14387). For dust/gas/ vapor concentrations above the applicable filter limit, in case of oxygen concentrations below 17% or in vague conditions, autonomous self-contained breathing apparatus should be used, according to standard BS EN 137, BS EN 138.

Thermal hazards

No information.

Environmental exposure controls

Substance/mixture related measures to prevent exposure

No information.

Instruction measures to prevent exposure

No information.

Organisational measures to prevent exposure

No information.

Technical measures to prevent exposure

Do not allow product to reach drains, sewage systems or ground water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state

liquid

Colour

colourless

Odour

solvent like

Important health, safety and environmental information

Odour threshold	No information.
Melting point/Freezing point	No information.
Boiling point or initial boiling point and boiling range	No information.
Flammability	(inflammable)
Lower and upper explosion limit	1 vol % (xylene) 8 vol % (xylene)
Flash point	32 °C
Auto-ignition temperature	> 200 °C
Decomposition temperature	No information.
pH	No information.
Viscosity	No information.
Solubility	Water: insoluble
Partition coefficient	No information.
Vapour pressure	9 hPa (xylene)
Density and/or relative density	Density: 1 g/cm^3 at 20 °C
Relative vapour density	4 (n-butyl acetate)
Particle characteristics	No information.

9.2 OTHER INFORMATION

Explosive properties	No information.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No information.

10.2 Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

10.3 Possibility of hazardous reactions

Vapours and air can form flammable or explosive mixtures.

10.4 Conditions to avoid

Protect from heat, direct sunlight, open fire, sparks.

10.5 Incompatible materials

Oxidants.

10.6 Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected. In case of fire/explosion vapours/gases that pose a health hazard are released.

SECTION 11: TOXICOLOGICAL INFORMATION

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

(a) Acute toxicity

For components

Name	Exposure route	Type	Species	Time	value	Method	Remark
1,6-hexamethylene diisocianate homopolymer	oral	LD_{50}	rat	/	> 2500 mg/kg	OECD 423	/
1,6-hexamethylene diisocianate homopolymer	dermal	LD_{50}	rat	/	> 2000 mg/kg	OECD 402	/
1,6-hexamethylene diisocianate homopolymer	inhalation	LC_{50}	rat (female)	4 h	0.39 mg/l	OECD 403	/
1,6-hexamethylene diisocianate homopolymer	dermal	LD_{50}	rabbit	/	> 2000 mg/kg	/	/
xylene	dermal	LD_{50}	rabbit	/	1700 mg/kg	/	/
xylene	oral	LD_{50}	rat	/	5000 mg/kg	/	/
xylene	inhalation	LC_{50}	rat	4 h	4500 ppm	/	/
n-butyl acetate	dermal	LD_{50}	rabbit	/	5000 mg/kg	/	/
n-butyl acetate	inhalation	LC_{50}	rat	4 h	9.6 - 29.2 mg/l	/	dust/aerosol
n-butyl acetate	oral	LD_{50}	rat	/	4700 mg/kg	/	/
2-methoxy-1-methylethyl acetate	oral	LD_{50}	rat	/	8530 mg/kg	/	/
2-methoxy-1-methylethyl acetate	inhalation	LC_{50}	rat	4 h	35.7 mg/l	/	vapour
2-methoxy-1-methylethyl acetate	dermal	LD_{50}	rat	/	5000 mg/kg	/	/

ethylbenzene	oral	LD_{50}	rat	/	3500 mg/kg	/	/
ethylbenzene	dermal	LD_{50}	rabbit	/	15354 mg/kg	/	/
ethylbenzene	inhalation	LC_{50}	rat	4 h	17.2 mg/l	/	/
hexamethylene-di-isocyanate	oral	LD_{50}	rat	/	746 mg/kg	/	/
hexamethylene-di-isocyanate	dermal	LD_{50}	rabbit	/	593 mg/kg	/	/
hexamethylene-di-isocyanate	inhalation	LC_{50}	rat	8 h	0.124 mg/l	OECD 403	vapour

Additional information

Harmful if inhaled.

(b) Skin corrosion/irritation

No information.

Additional information

Causes skin and eye irritation.

(c) Serious eye damage/irritation

For components

Name	Exposure route	Species	Time	result	Method	Remark
2-methoxy-1-methylethyl acetate	/	/	/	May cause irritation.	/	/

(d) Respiratory or skin sensitisation

No information.

Additional information

May cause an allergic skin reaction.

(e) (Germ cell) mutagenicity

No information.

(f) Carcinogenicity

For components

Name	Exposure route	Type	Species	Time	value	result	Method	Remark
ethylbenzene	/	/	/	/	/	IARC 2B: Possibly carcinogenic to humans.	/	/

(g) Reproductive toxicity

No information.

Summary of evaluation of the CMR properties

The product is not classified as carcinogenic, mutagenic or toxic for reproduction.

(h) STOT-single exposure

For components

Name	Exposure route	Type	Species	Time	Exposure	organ	value	result	Method	Remark
1,6-hexamethylene diisocianate homopolymer	inhalation (vapours)	NOAEC	rat	6 h	/	/	3 mg/m^3	/	OECD 403	/

Additional information

May cause drowsiness or dizziness. May cause respiratory irritation.

(i) STOT-repeated exposure

For components

Name	Exposure route	Type	Species	Time	Exposure	organ	value	result	Method	Remark
1,6-hexamethylene diisocianate homopolymer	inhalation (vapours)	NOAEC	rat	90 days	/	/	3.3 mg/L	/	OECD 413	6 hours per day

Additional information

May cause damage to organs through prolonged or repeated exposure.

(j) Aspiration hazard

No information.

Additional information

May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

No information.

Interactive effects

No information.

11.2 Information on other hazards

Endocrine disrupting properties

No information.

Other information

No information.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Acute (short-term) toxicity

For components

Name	Type	value	Exposure time	Species	organism	Method	Remark
1,6-hexamethylene diisocianate homopolymer	LC_{50}	8.9 mg/L	/	fish	*Brachydanio rerio*	/	/
1,6-hexamethylene diisocianate homopolymer	EC_{50}	127 mg/L	48 h	daphnia	/	EU C.3	static system
1,6-hexamethylene diisocianate homopolymer	EC_{50}	> 1000 mg/L	72 h	algae	*Scenedesmus subspicatus*	DIN 38412	/
1,6-hexamethylene diisocianate homopolymer	ErC_{50}	≥ 1000 mg/L	72 h	algae	*Desmodesmus subspicatus*	EU Method C.3	static system
xylene	EC_{50}	7.4 mg/L	48 h	crustacea	*Daphnia magna*	/	/
n-butyl acetate	LC_{50}	18 mg/L	96 h	fish	/	/	/
n-butyl acetate	EC_{50}	44 mg/L	48 h	crustacea	/	/	/
n-butyl acetate	EC_{50}	675 mg/L	72 h	algae	/	/	/
2-methoxy-1-methylethyl acetate	LC_{50}	100 mg/L	96 h	fish	*Oncorhynchus mykiss*	/	/

2-methoxy-1-methylethyl acetate	EC_{50}	500 mg/L	48 h	crustacea	/	/	/

Chronic (long-term) toxicity

No information.

12.2 Persistence and degradability

Abiotic degradation, physical- and photo-chemical elimination

No information.

Biodegradation

For components

Name	Type	Rate	Time	Evaluation	Method	Remark
1,6-hexamethylene diisocianate homopolymer	biodegradability	/	/	not readily biodegradable	/	/
1,6-hexamethylene diisocianate homopolymer	BOD (% ThOD)	1 % ThOD	/	/	EU C.4-E	/
ethylbenzene	Water solubility	1000 - 10000 mg/L	/	quickly biodegradable	/	/

12.3 Bioaccumulative potential

Partition coefficient

For components

Name	Media	value	Temperature °C	pH	Concentration	Method
1,6-hexamethylene diisocianate homopolymer	Koc	7.8	/	/	/	PCKOC v1.66
ethylbenzene	Octanol-water	3.6	/	/	/	/

Bioconcentration factor (BCF)

For components

Name	Species	organism	value	Duration	Evaluation	Method	Remark
1,6-hexamethylene diisocianate homopolymer	BCF	fish	3.2	/	/	BCFWIN v2.17	/
2-methoxy-1-methylethyl acetate	organism	/	0.43	/	/	/	/

12.4 Mobility in soil

Known or predicted distribution to environmental compartments

No information.

Surface tension

No information.

Adsorption/Desorption

No information.

12.5 Results of PBT and vPvB assessment

No evaluation.

12.6 Endocrine disrupting properties

No information.

12.7 Other adverse effects

No information.

12.8 Additional information

For product

Product is not classified as dangerous for environment. Do not allow to reach ground water, water courses or sewage system.

For components

1,6-hexamethylene diisocianate homopolymer

Bioaccumulation is not expected.

2-methoxy-1-methylethyl acetate

Water hazard class 1 (Self-assessment): slightly hazardous for water

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product / Packaging disposal

Waste chemical

Do not allow product to reach drains/sewage systems. Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste.

Waste codes / waste designations according to LoW

No information.

Packaging

Deliver completely emptied containers to approved waste disposal authorities. Uncleaned containers are classified as hazardous waste - they should be handled in the same manner as the contents. Uncleaned containers should not be perforated, cut or welded. Empty containers represent a fire hazard as they may contain flammable product residues and vapour.

Waste codes / waste designations according to LoW

No information.

Waste treatment-relevant information

No information.

Sewage disposal-relevant information

No information.

Other disposal recommendations

No information.

SECTION 14: TRANSPORT INFORMATION

ADR/RID	IMDG	IATA	ADN
14.1 UN number or ID number			
UN 1263	UN 1263	UN 1263	UN 1263
14.2 UN proper shipping name			
PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL

14.3 Transport hazard class(es)			
3	3	3	3
			
14.4 Packing group			
III	III	III	III
14.5 Environmental hazards			
NO	NO	NO	NO
14.6 Special precautions for user			
Limited quantities 5 L Special provisions 163, 367, 650 Packing Instructions P001, IBC03, LP01, R001 Special packing provisions PP1 Transport category 3 Tunnel restriction code (D/E)	Limited quantities 5 L EmS F-E, S-E Flash point 32 °C	Limited Quantity, Packing Instructions (Ltd Qty, Pkg Inst) Y344 Limited Quantity, Maximum Net Quantity/Package (Ltd Qty, Max Net Qty/Pkg) 10 L Packing Instructions (Pkg Inst) 355 Maximum Net Quantity/Package (Max Net Qty/Pkg) 25 L Cargo Aircraft Only, Packing Instructions (CAO, Pkg Inst) 366 Special provisions A3, A72, A192 ERG code 3L	Limited quantities 5 L
14.7 Maritime transport in bulk according to IMO instruments			
	Goods may not be carried in bulk in bulk containers, containers or vehicles.		

SECTION 15: REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2020/878)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

not applicable

Regulation EC 648/2004 on detergents

No information.

Special instructions

Observe the regulations on employment and protection against dangerous substances for young people, pregnant women and nursing mothers.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION

Indication of changes
No information.

Key literature references and sources for data
No information.

Abbreviations and acronyms
ATE - Acute Toxicity Estimate
ADR - Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CEN - European Committee for Standardisation
C&L - Classification and Labelling
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CAS# - Chemical Abstracts Service number
CMR - Carcinogen, Mutagen, or Reproductive Toxicant
CSA - Chemical Safety Assessment
CSR - Chemical Safety Report
DMEL - Derived Minimal Effect Level
DNEL - Derived No Effect Level
DPD - Dangerous Preparations Directive 1999/45/EC
DSD - Dangerous Substances Directive 67/548/EEC
DU - Downstream User
EC - European Community
ECHA - European Chemicals Agency
EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)
EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)
EEC - European Economic Community
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
EN - European Standard
EQS - Environmental Quality Standard
EU - European Union
Euphrac - European Phrase Catalogue
EWC - European Waste Catalogue (replaced by LoW – see below)
GES - Generic Exposure Scenario
GHS - Globally Harmonized System
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
IMSBC - International Maritime Solid Bulk Cargoes
IT - Information Technology
IUCLID - International Uniform Chemical Information Database
IUPAC - International Union for Pure Applied Chemistry
JRC - Joint Research Centre
Kow - octanol-water partition coefficient
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
LE - Legal Entity
LoW - List of Wastes (see http://ec.europa.eu/environment/waste/framework/list.htm)
LR - Lead Registrant
M/I - Manufacturer / Importer
MS - Member States
MSDS - Material Safety Data Sheet
OC - Operational Conditions
OECD - Organization for Economic Co-operation and Development
OEL - Occupational Exposure Limit
OJ - Official Journal
OR - Only Representative
OSHA - European Agency for Safety and Health at work
PBT - Persistent, Bioaccumulative and Toxic substance
PEC - Predicted Effect Concentration

PNEC(s) - Predicted No Effect Concentration(s)
PPE - Personal Protection Equipment
(Q)SAR - Qualitative Structure Activity Relationship
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
RIP - REACH Implementation Project
RMM - Risk Management Measure
SCBA - Self-Contained Breathing Apparatus
SDS - Safety data sheet
SIEF - Substance Information Exchange Forum
SME - Small and Medium sized Enterprises
STOT - Specific Target Organ Toxicity
(STOT) RE - Repeated Exposure
(STOT) SE - Single Exposure
SVHC - Substances of Very High Concern
UN - United Nations
vPvB - Very Persistent and Very Bioaccumulative

List of relevant H phrases

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H312 + H332 Harmful in contact with skin or if inhaled.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.