

according to Regulation (EC) No 1907/2006 (REACH) as amended

TELHARD PUR 4

Creation date	16th October 2020	Version	1.0
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

- 1.1. Product identifier**
Substance / mixture TELHARD PUR 4
Other mixture names mixture
Hardener for polyurethane paints TELPUR
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**
Mixture's intended use Hardener for polyurethane paints.
Mixture uses advised against The product should not be used in ways other than those referred in Section 1.
Exposure scenario is attached to the Safety Data Sheet.
- 1.3. Details of the supplier of the safety data sheet**
Manufacturer
Name or trade name BARVY A LAKY TELURIA, s.r.o.
Address č.p.1, Skrchov, 679 61
Czech Republic
Identification number (CRN) 43420371
VAT Reg No CZ43420371
Phone +420 516 474 211
E-mail tel@teluria.cz
Web address http://www.bal.cz
- Competent person responsible for the safety data sheet**
Name BARVY A LAKY TELURIA, s.r.o.
E-mail tel@teluria.cz
- 1.4. Emergency telephone number**
European emergency number: 112

SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture**
Classification of the mixture in accordance with Regulation (EC) No 1272/2008
The mixture is classified as dangerous.

Flam. Liq. 3, H226
Skin Sens. 1B, H317
STOT SE 3, H335, H336

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse physico-chemical effects

Flammable liquid and vapour.

Most serious adverse effects on human health and the environment

May cause an allergic skin reaction. May cause respiratory irritation. May cause drowsiness or dizziness.

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2.2. Label elements

Hazard pictogram



Signal word

Warning

Hazardous substances

 3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate homopolymer, isocyanurate type
 n-butyl acetate

3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate

Hazard statements

H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H335	May cause respiratory 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.
P280	Wear protective gloves/protective clothing/eye protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other hazards

Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of substances and additives specified below.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
CAS: 53880-05-0 EC: 931-312-3 Registration number: 01-2119488734-24	3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate homopolymer, isocyanurate type	70	Skin Sens. 1B, H317 STOT SE 3, H335	
Index: 607-025-00-1 CAS: 123-86-4 EC: 204-658-1 Registration number: 01-2119485493-29	n-butyl acetate	30	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	2

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Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 615-008-00-5 CAS: 4098-71-9 EC: 223-861-6	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	<0,5	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Acute Tox. 3, H331 Resp. Sens. 1, H334 STOT SE 3, H335 Aquatic Chronic 2, H411 Specific concentration limit: Skin Sens. 1, H317: C ≥ 0,5 % Resp. Sens. 1, H334: C ≥ 0,5 %	1, 3

Notes

- 1 Note 2: The concentration of isocyanate stated is the percentage by weight of the free monomer calculated with reference to the total weight of the mixture.
- 2 Substance for which exposure limits of Community for working environment exist.
- 3 Substance for which biological limit values exist.

Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet. If unconscious, put the person in the stabilized (recovery) position on his side with his head slightly bent backwards and make sure that airways are free; never induce vomiting. If the person vomits by himself, make sure that the vomit is not inhaled. In life threatening conditions first of all provide resuscitation of the affected person and ensure medical assistance. Respiratory arrest - provide artificial respiration immediately. Cardiac arrest - provide indirect cardiac massage immediately.

If inhaled

Terminate the exposure immediately; move the affected person to fresh air. Protect the person against growing cold. Provide medical treatment if irritation, dyspnoea or other symptoms persist.

If on skin

Remove contaminated clothes. Wash the affected area with plenty of water, lukewarm if possible. Soap, soap solution or shampoo should be used if there is no skin injury. Provide medical treatment if skin irritation persists. Rinse skin with water or shower.

If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. Rinsing should continue at least for 10 minutes.

If swallowed

DO NOT INDUCE VOMITING! Rinse out the mouth with water and provide 2-5 dL of water. Provide medical treatment if the person has any health problems.

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

If inhaled

May cause respiratory irritation. May cause drowsiness or dizziness.

If on skin

May cause an allergic skin reaction.

If in eyes

Not expected.

If swallowed

Irritation, nausea.

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

Symptomatic treatment. If you see a doctor, take this safety data sheet with you.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

Unsuitable extinguishing media

Water - full jet.

5.2. Special hazards arising from the substance or mixture

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

5.3. Advice for firefighters

Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Use a self-contained breathing apparatus and full-body protective clothing. Closed containers with the product near the fire should be cooled with water. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For workers apart from emergency teams: Avoid inhalation of vapour, prevent skin and eye contact. Wear appropriate protective clothing and gloves. Wear eye protection and face shield if necessary. Use suitable respiratory protection. In closed spaces, ensure fresh air supply. Eliminate all ignition sources. No smoking and no open fire. Keep unnecessary personnel away.

For members of emergency teams: Use appropriate personal protective equipment – protective clothing with antistatic finish and impermeable work shoes. Treat unprotected skin with barrier cream. Anti-chemical protective gloves. For short-time exposure or low concentration, use respirator with organic vapour and dust filter (protection level A/P2); for high concentration and long-term exposure, self-contained respirator is necessary.

6.2. Environmental precautions

Prevent contamination of the soil and entering surface or ground water. If possible prevent leakage, close container and place damaged container in protective container.

6.3. Methods and material for containment and cleaning up

Spilled product should be covered with suitable (non-flammable) absorbing material (sand, diatomaceous earth, earth and other suitable absorption materials); to be contained in well closed containers and removed as per the Section 13. In the event of leakage of the substantial amount of the product, inform fire brigade and other competent bodies. After removal of the product, wash the contaminated site with plenty of water. Do not use solvents.

6.4. Reference to other sections

See the Section 7, 8 and 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

7.1.1. General health measures

Use the product after due familiarization with its hazard characteristics and proper training or training in its safe use. Do not eat, drink, smoke on the site. Wash your hands and other contaminated parts of body by soap and water before eating and after the use of product is finished. Abide by requirements on personal hygiene when working with hazardous chemical products.

Use technical equipment on the site to control human and environment exposure. Regularly inspect the equipment, ensure cleaning, timely maintenance and permanent functionality. When working, use the recommended personal protective equipment listed in 8.2 of the Safety Data Sheet and in Annex to the Safety Data Sheet. Keep the protective clothing and protective equipment sound and clean. Immediately replace the damaged protective aids for sound ones. Keep the site, tools and aids clean and in sound state. On the site, keep the product in labelled containers or tanks. Store product waste and wastes contaminated by the product in suitable and properly labelled vessels located on designated marked and protected places. Ensure long-term storing of wastes containing the product outside the site.

7.1.2. Fire precautions

When using the product, prevent potential ignition or explosion of the mixture of product vapour and air caused by contact with open flame, sparks, extremely hot surfaces, electrostatic discharges. Do not smoke on the site, use non-sparking tools. Places with increased occurrence of the vapour-air mixture need to be ventilated to prevent formation of explosive mixtures. Solvent vapours are heavier than air. The site should be protected from electrostatic discharges.

7.1.3. Environmental precautions

Handle the product on a site technically adapted to avoid accidental leakage to sewerage systems, water or soil. Product waste and wastes contaminated by the product to be disposed of as hazardous waste. Waste water contaminated by the product may only be discharged to water reservoirs after the product components are properly removed in a waste water treatment plant or in other appropriate treatment plant able to remove drifted product components from water. Do not pour the product to waste water. Emissions of solvent from point sources are subjected to control requirements acc. to air protection regulations.

7.2. Conditions for safe storage, including any incompatibilities

Store the product in properly marked, closed containers in well ventilated spaces at 5 – 25 °C. The storages must meet the requirements on storing of flammable liquids and substances hazardous for aquatic life and soil. Protect from heat, hot surfaces, sparks, open flame and other ignition sources. No smoking. Store away from oxidising substances and strong acids. Do not store with food, drinks, feed material, medicines. Storages should be protected from static electricity. First aid kit and water suitable for eye rinsing should be available. Keep away from products that are corrosive to metals (eg acids or pool chemicals).

Storage class

3A - Flammable liquids (flash point below 55 °C)

Material of package

FE (40), Steel (Metals)



Storage temperature

min 5 °C, max 25 °C

The specific requirements or rules relating to the substance/mixture

Solvent vapours are heavier than air and accumulate especially near the floor where they may form an explosive mixture with the air.

7.3. Specific end use(s)

Use in coating compositions was assessed for substance n-butyl acetate. Conditions of safe use of the registered coating composition components specified in exposure scenarios to SDSs of the components are incorporated to this Safety Data Sheet and its Annex.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The mixture contains substances for which occupational exposure limits are set.

European Union

Commission Directive 2000/39/EC

Substance name (component)	Type	Value
n-butyl acetate (CAS: 123-86-4)	OEL 8 hours	241 mg/m ³
	OEL 8 hours	50 ppm
	OEL 15 minutes	723 mg/m ³
	OEL 15 minutes	150 ppm

DNEL

3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	0.0453 mg/m ³	Local acute effects	
Workers	Inhalation	0.0453 mg/m ³	Local chronic effects	

3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate homopolymer, isocyanurate type

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	0.58 mg/m ³	Local acute effects	
Workers	Inhalation	0.29 mg/m ³	Local chronic effects	

n-butyl acetate

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	48 mg/m ³	Systemic chronic effects	
Workers	Inhalation	600 mg/m ³	Systemic acute effects	
Workers	Inhalation	300 mg/m ³	Local chronic effects	
Workers	Inhalation	600 mg/m ³	Local acute effects	
Workers	Dermal	7 mg/kg bw/day	Systemic chronic effects	
Workers	Dermal	11 mg/kg bw/day	Systemic acute effects	
Consumers	Inhalation	12 mg/m ³	Systemic chronic effects	
Consumers	Inhalation	300 mg/m ³	Systemic acute effects	
Consumers	Inhalation	35.7 mg/m ³	Local chronic effects	
Consumers	Inhalation	300 mg/m ³	Local acute effects	
Consumers	Dermal	3.4 mg/kg bw/day	Systemic chronic effects	
Consumers	Dermal	6 mg/kg bw/day	Systemic acute effects	
Consumers	Oral	2 mg/kg bw/day	Systemic chronic effects	

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PNEC

3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate

Route of exposure	Value	Determining method
Seawater	0.006 mg/l	
Drinking water	0.06 mg/l	
Sea sediments	21.89 mg/kg of dry substance of sediment	
Freshwater sediment	218-92 mg/kg of dry substance of sediment	
Water (regular leak)	0.04 mg/l	
Soil (agricultural)	44.01 mg/kg of dry substance of soil	

3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate homopolymer, isocyanurate type

Route of exposure	Value	Determining method
Seawater	0.00015 mg/l	
Drinking water	0.0015 mg/l	
Water (intermittent release)	0.015 mg/l	

n-butyl acetate

Route of exposure	Value	Determining method
Freshwater environment	0.18 mg/l	
Seawater	0.018 mg/l	
Water (intermittent release)	0.36 mg/l	
Microorganisms in wastewater treatment plants	35.6 mg/l	
Freshwater sediment	0.981 mg/kg of dry substance of sediment	
Sea sediments	0.0981 mg/kg of dry substance of sediment	
Soil (agricultural)	0.0903 mg/kg of dry substance of soil	

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8.2. Exposure controls

Conditions of safe use of the registered coating composition components specified in exposure scenarios to Safety Data Sheets of the components are given in Annex of the SDS, including the required additional measures restricting the exposure – see the exposure scenarios for the intended uses of the coating composition.

General safety and hygienic measures. When working, do not eat, drink, smoke. Before the break and after the work, hands should be washed with soap and hot water, treated with barrier cream. Overall and local ventilation, effective extraction.

Eye/face protection

Protective goggles or face shield (based on the nature of the work performed).

Skin protection

Skin protection: Protective clothes with antistatic finish, protective shoes; treat unprotected skin with barrier cream. Hand protection: Chemical resistant protective gloves (EN 374-1:2003). Suitable material – nitrile rubber, PVA and others, time of penetration corresponding to > 480 minutes. The time of penetration specified by the manufacturer should be followed and the glove replaced after expiration. If damaged, the gloves should be replaced immediately. The selection of suitable protective gloves does not only depend on their material, but also on other qualitative features. Furthermore, since the mixture can be used for various purposes, mixed with other substances, the suitability of gloves for all purposes cannot be predetermined and must be verified in particular use.

Respiratory protection

Don't breathe vapours. For short-time exposure or low concentration, use respirator with organic vapour and dust filter (protection level A/P2); for high concentration and long-term exposure, self-contained respirator is necessary.

Thermal hazard

Not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2. Ensure that containers are properly closed during storage, handling and transport. Secure storage areas against possible leakage of product into the environment (sewerage, water, soil - see 6.2). Do not flush product into drains or watercourses.

More information

Exposure scenario is attached to the Safety Data Sheet.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	
physical state	liquid at 20 °C
color	transparent
Odour	typical aromatic
Odour threshold	data not available
pH	data not available
Melting point/freezing point	data not available
Initial boiling point and boiling range	126 °C
Flash point	25 °C
Evaporation rate	data not available
Flammability (solid, gas)	Flammable liquid and vapour.
Upper/lower flammability or explosive limits	
flammability limits	data not available
explosive limits	data not available
Vapour pressure	1.5 kPa at 20 °C
Vapour density	data not available
Relative density	data not available
Solubility(ies)	
solubility in water	insoluble, reacts with water

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solubility in fats		data not available	
Partition coefficient: n-octanol/water		data not available	
Auto-ignition temperature		data not available	
Decomposition temperature		data not available	
Viscosity		data not available	
Kinematic viscosity		>20.5 mm ² /s at 40 °C	
Explosive properties		data not available	
Oxidising properties		data not available	
9.2. Other information			
Density		1.07 g/cm ³ at 23 °C	
ignition temperature		data not available	
content of organic solvents (VOC)		0.30 kg/kg	
total organic carbon (TOC)		0.19 kg/kg	

SECTION 10: Stability and reactivity

10.1. Reactivity

When used in the standard way, there is not any dangerous reaction with other substances.

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

Unknown.

10.4. Conditions to avoid

The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

10.5. Incompatible materials

Protect against strong acids, bases and oxidizing agents.

10.6. Hazardous decomposition products

Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Inhalation of solvent vapors above values exceeding exposure limits for working environment may result in acute inhalation poisoning, depending on the level of concentration and exposure time. No toxicological data is available for the mixture.

Acute toxicity

Based on available data the classification criteria are not met.

3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Sex
Oral	LD50		4814 mg/kg		Rat	
Oral	LD50		>2645 mg/kg		Mouse	
Dermal	LD50	OECD 402	>7000 mg/kg		Rat	
Inhalation	LC50	OECD 403	31-40 mg/m ³	4 hour	Rat	

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3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate homopolymer, isocyanurate type

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Sex
Oral	LD50	OECD 401	>14000 mg/kg		Rat (<i>Rattus norvegicus</i>)	
Inhalation	LC50	OECD 403	>5 mg/l	4 hour	Rat (<i>Rattus norvegicus</i>)	

n-butyl acetate

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Sex
Oral	LD50		10760 mg/kg		Rat (<i>Rattus norvegicus</i>)	
Inhalation (gases)	LC50		2000 ppm	4 hour	Rat (<i>Rattus norvegicus</i>)	
Dermal	LD50		1400 mg/kg		Rabbit	

Skin corrosion/irritation

Based on available data the classification criteria are not met.

Serious eye damage/irritation

Based on available data the classification criteria are not met.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Carcinogenicity

Based on available data the classification criteria are not met.

Reproductive toxicity

Based on available data the classification criteria are not met.

Toxicity for specific target organ - single exposure

May cause respiratory irritation. May cause drowsiness or dizziness.

Toxicity for specific target organ - repeated exposure

Based on available data the classification criteria are not met.

Aspiration hazard

Based on available data the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

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Acute toxicity

Data for the mixture are not available.

3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate homopolymer, isocyanurate type

Parameter	Method	Value	Time of exposure	Species	Environment
LC50	OECD 203	>1.5 mg/l	96 hour	Fishes (Oncorhynchus mykiss)	
EC50	OECD 202	>3.3 mg/l	48 hour	Daphnia (Daphnia magna)	
EC50	OECD 201	>3.1 mg/l	72 hour	Algae (Selenastrum capricornutum)	

n-butyl acetate

Parameter	Method	Value	Time of exposure	Species	Environment
LC50		18 mg/l	96 hour	Fishes (Oncorhynchus mykiss)	
EC50		44 mg/l	48 hour	Daphnia (Daphnia magna)	
EC50		200 mg/l	72 hour	Algae (Selenastrum capricornutum)	

12.2. Persistence and degradability

Biodegradability

3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate homopolymer, isocyanurate type

Parameter	Method	Value	Time of exposure	Environment	Result
	OECD 301F	0 %	28 day		Not biodegradable

Data for mixture not available.

12.3. Bioaccumulative potential

Not available.

12.4. Mobility in soil

The mixture is a liquid insoluble in water, in case of leakage into environment, it may be dispersed over large distances and penetrate into underground water. It contains components with the potential of mobility in soil. When released into the soil may occur due to contamination of groundwater.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Other adverse effects

Volatile organic substances contained in the mixture have the potential to damage ozone layer. The isocyanate reacts with water at the interface to evolve CO₂ and form a solid insoluble solid with a high melting point (polyurea). This reaction is strongly promoted by surfactants (eg liquid soaps) or water-soluble solvents. According to the experience presented so far, polyurea is inert and non-degradable.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

Waste type code

08 01 11 waste paint and varnish containing organic solvents or other hazardous substances *

Packaging waste type code

15 01 10 packaging containing residues of or contaminated by hazardous substances *

(*) - Hazardous waste according to Directive 2008/98/EC on hazardous waste

SECTION 14: Transport information

14.1. UN number

UN 1866

14.2. UN proper shipping name

RESIN SOLUTION

14.3. Transport hazard class(es)

3 Flammable liquids

14.4. Packing group

III - substances presenting low danger

14.5. Environmental hazards

not available

14.6. Special precautions for user

Reference in the Sections 4 to 8.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not classified.

Additional information

Hazard identification No.

30

UN number

1866

Classification code

F1

Safety signs

3



Marine transport - IMDG

EmS (emergency plan)

F-E, S-E

MFAG

300

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SECTION 15: Regulatory information

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

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended.

15.2. Chemical safety assessment

Chemical safety assessment was carried out on substance n-butyl acetate. The respective exposure scenarios are incorporated in Annex of this Safety Data Sheet.

SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic 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.
H411	Toxic to aquatic life with long lasting effects.

Guidelines for safe handling used in the safety data sheet

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/protective clothing/eye protection.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

A list of additional standard phrases used in the safety data sheet

EUH066	Repeated exposure may cause skin dryness or cracking.
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Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
DNEL	Derived no-effect level
EC	Identification code for each substance listed in EINECS
EC50	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
IATA	International Air Transport Association

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IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC50	Concentration causing 50% blockade
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC50	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD50	Lethal dose of a substance in which it can be expected death of 50% of the population
LOAEC	Lowest observed adverse effect concentration
LOAEL	Lowest observed adverse effect level
log Kow	Octanol-water partition coefficient
MARPOL	International Convention for the Prevention of Pollution From Ships
NOAEC	No observed adverse effect concentration
NOAEL	No observed adverse effect level
NOEC	No observed effect concentration
NOEL	No observed effect level
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted no-effect concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative
Acute Tox.	Acute toxicity
Aquatic Chronic	Hazardous to the aquatic environment (chronic)
Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquid
Resp. Sens.	Respiratory sensitization
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitization
STOT SE	Specific target organ toxicity - single exposure

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

The product is exclusively intended for use in installations authorised according to Directive 1999/13/EC where emission limiting measures provide alternative means of achieving at least equivalent VOC emission reductions.

Information about data sources used to compile the Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH) as amended

TELHARD PUR 4

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REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended.
REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from
the manufacturer of the substance / mixture, if available - information from registration dossiers.

More information

Classification procedure - calculation method.

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.

Annex to the Product Safety Data Sheet - EXPOSURE SCENARIO

1. Industrial use

Application sector	: SU 3
Chemical product category	: PC9a
Partial processes covered by exposure scenario:	PROC1, PROC2, PROC 3, PROC4, PROC5, PROC 7, PROC8a, PROC8b, PROC10, PROC13, PROC15
Environmental release	: ERC4

Basic conditions to control the hazard for workers:

Duration of work activities	: Covers exposure up to 8 h/d (unless otherwise specified)
Concentration	: Work with the hardener, the hardened standard coating composition or coating composition thinned by solvents containing the same volatile components as the coating composition is anticipated.
Temperature	: Work at temperature up to 20 °C higher than site temperature is anticipated except for the coating composition's drying and hardening processes at increased temperature.
General risk management measures	: Wear protective working clothes. Wear protective gloves and eye protection if in danger of contact with the hardener and the hardened coating composition. Basic training required. Abide by general principles of safe and hygienic work with chemical substances.
Site where the activities are performed	: Indoor use is anticipated.

Additional requirements to control the hazard for workers carrying out partial work activities:

Partial work activities with the product (Partial contributing scenarios)	Process category	Required additional measures to control worker exposure
Pumping from/to containers and devices within a closed system with no possibility to release emission	PROC 1 Use within closed production process	Irrelevant.
Pumping the hardener and the hardened coating composition from/to containers and devices at non dedicated facility with potential human and environment exposure	PROC 8a Transfer of the product (charging / discharging) to/from vessels/large containers at non dedicated facilities	Local air extraction at potential emission release or good ventilation (3-5 air exchanges per hour).
Pumping the hardener and the hardened coating composition from/to containers and devices at non dedicated facility with potential human and environment exposure	PROC 8b Transfer of the product (charging / discharging) to/from vessels/large containers at dedicated facilities	Local air extraction at potential emission release or good ventilation (3-5 air exchanges per hour).
Mixing, blending, thinning of the hardener and the hardened coating composition in open devices with possible exposure to volatile components of the coating composition	PROC5 Mixing or blending in batch processes at mixture manufacturing (excl. charging and discharging of vessels).	Local air extraction at potential emission release or good ventilation (3-5 air exchanges per hour).
Application by spraying.	PROC 7 Industrial spraying.	Robotic spraying in closed chambers or closed cabs with laminar extraction. In course of spraying, enter the chambers only with self-contained respirator. Manual spraying in spraying chambers with laminar flow of extracted air directed from the worker or in intensively ventilated spaces (5-10 air exchanges per hour) with respiratory protection (half-face or full-face respirator) provided with type A/P2 filter.
Manual hardened coating composition application by roller, brush or palette knife.	PROC 10 Roller, palette knife or brush application	Local air extraction at potential emission release or good ventilation (3-5 air exchanges per hour).
Dipping or pouring application of hardened coating composition.	PROC 13 Treatment of articles by dipping and pouring	Local air extraction at potential emission release or good ventilation (3-5 air exchanges per hour).
Free drying of hardened coating composition film at standard or slightly increased ambient temperature (by max. 20 °C)	PROC 4 Use within batch or other process where opportunity for exposure arises	Carry out in well ventilated spaces (3-5 air exchanges per hour).
Continuous drying and hardening processes of the hardened coating composition film at increased temperature in drying tunnels equipped with vapour extraction	PROC 2 Use within continuous chemical production process with occasional controlled exposure (e.g. at sampling).	Does not require further risk control measures.
Batch drying and hardening processes of the hardened coating composition film at increased temperature in extracted chambers	PROC 3 Use within closed batch process of mixture manufacturing.	Does not require further risk control measures.
Machine cleaning and washing of closed tanks, containers and devices equipped with vapour extraction	PROC 3 Use within closed batch process of mixture manufacturing	Does not require further risk control measures.

Manual cleaning of small containers, application devices and tools	PROC 10 Roller, palette knife or brush application (by a tool held in hand) PROC8a Transfer of the product (charging / discharging) to/from vessels/large containers at non dedicated facilities	Local air extraction at potential emission release or good ventilation (3-5 air exchanges per hour).
Laboratory checks on the hardener and the coating composition	PROC 15 Use as laboratory reagent (laboratory work with the product)	Good ventilation (3 – 5 air exchanges per hour).
Activities involving product waste and waste contaminated by the product		If in risk of contact with waste, wear protective gloves. Store the waste in closable containers stored in well ventilated storages or outdoor.

Additional requirements to control environmental hazards

Air emission control	When spraying, remove fly coating mist from the air extracted from the work site. If the limits for solvent consumption defined in Ordinance no. 415/2012 Coll. are exceeded, use solvent recuperation from waste air or remove the solvents by incineration or other processes guaranteeing observation of emission parameters specified in air protection regulations.
Water emission control	Store the hardener, the coating and waste contaminated by coat in buildings structurally protected from leakage release and emergency release to surface and ground water. Treat water contaminated by coat compounds and remove solid impurities and organic compounds by sedimentation, filtration, biological treatment processes or special processes developed for treatment of water contaminated by coating compositions before discharging to surface water. When discharging the treated waste water, observe the contamination parameters specified for the involved facility by water management authority.
Disposal of waste	Dispose of hardener and coat waste and materials contaminated by coat and its compounds in cooperation with authorised persons as of hazardous waste. Dispose of solvent waste from tools and device cleaning as of hazardous waste. Prevent release or discharge of any liquid waste to surface and ground water unless it is treated and coating composition compounds are removed.

2. Professional use

Application sector	: SU 22
Chemical product category	: PC9a
Partial processes covered by exposure scenario:	PROC 3, PROC4, PROC5, PROC 7, PROC8a, PROC8b, PROC10, PROC11, PROC13, PROC15, PROC19
Environmental release	: ERC 8a, ERC 8d

Basic conditions to control the hazard for workers:

Duration of work activities	: Covers exposure up to 8 h/d (unless otherwise specified)
Concentration	: Work with hardener and standard hardened coating composition or coating composition thinned by solvents containing the same volatile components as the coating composition is anticipated.
Temperature	: Work at temperature up to 20 °C higher than site temperature is anticipated except for the hardened coating composition's drying and hardening processes at increased temperature.
General risk management measures	: Wear protective working clothes. Wear protective gloves and eye protection if in danger of contact with the hardener and the hardened coating composition. Basic training required. Abide by general principles of safe and hygienic work with chemical substances.
Site where the activities are performed	: Indoor and outdoor use is anticipated.

Additional requirements to control the hazard for workers carrying out partial work activities:

Partial work activities with the product (Partial contributing scenarios)	Process category	Required additional measures to control worker exposure
Pumping the hardener and the hardened coating composition from/to containers and devices at non dedicated facility with potential human and environment exposure	PROC 8a Transfer of the product (charging / discharging) to/from vessels/large containers at non dedicated facilities	Indoor: local air extraction at potential emission release or good ventilation (3-5 air exchanges per hour). Outdoor: secure catch dripping paint
Pumping the hardener and the hardened coating composition from/to containers and devices at non dedicated facility with potential human and environment exposure	PROC 8b Transfer of the product (charging / discharging) to/from vessels/large containers at dedicated facilities	Indoor: local air extraction at potential emission release or good ventilation (5 - 10 air exchanges per hour). Outdoor: does not require further risk control measures

Mixing, blending, thinning of hardener and the hardened coating composition in open devices with possible exposure to volatile components of the coating composition	PROC5 Mixing or blending in batch processes at mixture manufacturing (excl. charging and discharging of vessels).	Indoor: local air extraction at potential emission release or good ventilation (3-5 air exchanges per hour). Outdoor: working process a maximum of 4h per day does not require further risk control measures or use respiratory protection with filter type A.
Application by spraying.	PROC 11 Non industrial spraying.	Indoor: do spraying in spraying chambers with laminar flow of extracted air directed from the worker or in intensively ventilated spaces (5-10 air exchanges per hour) with respiratory protection (half-face or full-face respirator) provided with type A/P2 filter. Outdoor: use respiratory protection with filter type A/P2.
Manual hardened coating composition application by roller, brush or palette knife.	PROC 10 Roller, palette knife or brush application	Indoor: local air extraction at potential emission release or good ventilation (5 - 10 air exchanges per hour). Outdoor: does not require further risk control measures
Dipping or pouring application of hardened coating composition.	PROC 13 Treatment of articles by dipping and pouring	Indoor: local air extraction at potential emission release or good ventilation (5 - 10 air exchanges per hour). Outdoor: use respiratory protection with filter type A.
Free drying of hardened coating composition film at standard or slightly increased ambient temperature (by max. 20 °C)	PROC 4 Use within batch or other process where opportunity for exposure arises	Indoor: carry out in well ventilated spaces (5 -- 10 air exchanges per hour). Outdoor: does not require further risk control measures
Batch drying and hardening processes of the hardened coating composition film at increased temperature in extracted chambers	PROC 3 Use within closed batch process of mixture manufacturing.	Does not require further risk control measures.
Machine cleaning and washing of closed tanks, containers and devices equipped with vapour extraction	PROC 3 Use within closed batch process of mixture manufacturing	Does not require further risk control measures.
Manual cleaning of small containers, application devices and tools	PROC 10 Roller, palette knife or brush application (by a tool held in hand)	Indoor: local air extraction at potential emission release or good ventilation (5 - 10 air exchanges per hour). Outdoor: does not require further risk control measures
Laboratory checks on the hardener and the hardened coating composition	PROC 15 Use as laboratory reagent (laboratory work with the product)	Good ventilation (3 – 5 air exchanges per hour).
Manual activities involving hand contact	PROC19 Hand-mixing with intimate contact and only PPE available	Indoor. Use protective gloves, local air extraction at potential emission release or good ventilation Outdoor: use protective gloves
Activities involving product waste and waste contaminated by the product		If in risk of contact with waste, wear protective gloves. Store the waste in closable containers stored in well ventilated storages or outdoor.

Additional requirements to control environmental hazards

Air emission control	Does not require special risk control measures
Water emission control	Store the hardener, paints and waste contaminated by paints in buildings structurally protected from leakage release and emergency release to surface and ground water. Clean up waste water contaminated by paints in the Municipal wastewater treatment plants before discharging to surface water or capture or dispose them as hazardous waste in cooperation with the authorized person. Overspray and drips paint as possible to capture and dispose as hazardous waste.
Disposal of waste	Prevent leakage or discharge of any liquid waste into surface and groundwater unless it is cleaned up from the paint compounds. Dispose of hardener waste, paint waste and materials contaminated by paints and its compounds in cooperation with authorised persons as of hazardous waste. Dispose of solvent waste from tools and device cleaning as of hazardous waste.