Safety Data Sheet
Hempadur 17949 Base

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758 - United Kingdom (UK)

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

1.1 Product identifier

Product name : Hempadur 17949 Base

Product identity : 1794919880, 00009362

Product type : epoxy primer (base for multi-component product)

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

Field of application : metal industry, ships and shipyards.

Ready-for-use mixture : 17940 = 17949 2 vol. / 97290 1 vol.

Identified uses : Industrial applications, Used by spraying.

1.3 Details of the supplier of the safety data sheet

Company details :

Hempel UK Ltd
Berwyn House, The Pavilions
Llantarnam Park
Cwmbran
South Wales NP44 3FD
Telephone: 01633 833600
hempel@hempel.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation)

UK: **01633 833600** (08.00 - 17.00)
Ireland: **01 809 2166** (National Poisons Information Centre, Monday-Sunday; 08:00-22:00)

See Section 4 of the safety data sheet (first aid measures).

Date of issue : 27 August 2025

Date of previous issue : 21 December 2022.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to UK CLP/GHS

Flam. Liq. 3, H226	FLAMMABLE LIQUIDS
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/EYE IRRITATION
Skin Sens. 1, H317	SKIN SENSITISATION
STOT SE 3, H335	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation)
STOT SE 3, H336	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects)
Aquatic Chronic 2, H411	LONG-TERM (CHRONIC) AQUATIC HAZARD

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

2.2 Label elements

Hazard pictograms :

Signal word : Warning

Hazard statements :

H226 - Flammable liquid and vapour.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.
H336 - May cause drowsiness or dizziness.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention : Wear protective gloves. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment.

Response : Collect spillage.

Store in a well-ventilated place. Keep container tightly closed.

Hazardous ingredients : solvent naphtha (petroleum), light arom.
bis-[4-(2,3-epoxipropoxi)phenyl]propane

Supplemental label elements : Repeated exposure may cause skin dryness or cracking. Contains epoxy constituents. May produce an allergic reaction.

SECTION 2: Hazards identification

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

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

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Product/ingredient name	Identifiers	%	GB CLP Classification	Type
Solvent naphtha (petroleum), light arom.	REACH #: 01-2119455851-35 EC: 918-668-5 CAS: 64742-95-6	≥25 - ≤50	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	[1]
1-methoxy-2-propanol	REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3	≥10 - ≤25	Flam. Liq. 3, H226 STOT SE 3, H336	[1] [2]
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	REACH #: 01-2119463258-33 EC: 265-150-3 CAS: 64742-48-9 Index: 649-327-00-6	≤5	Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304 EUH066	[1]
bis-[4-(2,3-epoxipropoxi)phenyl] propane	REACH #: 01-2119456619-26 EC: 216-823-5 CAS: 1675-54-3 Index: 603-074-00-8	≤3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]
Solvent naphtha (petroleum), light arom.	REACH #: 01-2119455851-35 EC: 918-668-5 CAS: 64742-95-6	≤3	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	[1]
3-(2,3-epoxypropoxy) propyl trimethoxy silane	REACH #: 01-2119513212-58 EC: 219-784-2 CAS: 2530-83-8	<3	Eye Dam. 1, H318 Aquatic Chronic 3, H412	[1]

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

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit, see section 8.
[3] Substance of equivalent concern - Endocrine disrupting properties
[4] Substance with carcinogenic, mutagenic or reproductive toxicity properties

SECTION 4: First aid measures

4.1 Description of first aid measures

General : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 112 and give immediate treatment (first aid).

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek immediate medical attention/advice.

Inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing. Give nothing by mouth. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If unconscious, place in recovery position and get medical attention immediately.

Skin contact : Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners. Remove contaminated clothing and shoes.

SECTION 4: First aid measures

Ingestion :	If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting unless directed to do so by medical personnel. Lower the head so that vomit will not re-enter the mouth and throat.
Protection of first-aiders :	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact :	Causes serious eye irritation.
Inhalation :	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
Skin contact :	Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.
Ingestion :	Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact :	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation :	Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact :	Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion :	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician :	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments :	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Extinguishing media :	Recommended: Approved Class D extinguisher or smother with dry sand, dry clay or dry ground limestone. NOT TO BE USED: WATER. Risk of formation of very flammable and explosive vapours.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture :	Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous combustion products :	Decomposition products may include the following materials: carbon oxides halogenated compounds metal oxide/oxides

5.3 Advice for firefighters

SECTION 5: Firefighting measures

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not use water. Violent reaction may occur. Avoid all direct contact with the spilled material. Exclude sources of ignition and be aware of explosion hazard. Ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8. No action shall be taken involving any personal risk or without suitable training. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.2 Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

6.3 Methods and material for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Use spark-proof tools and explosion-proof equipment. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits. In addition, the product should be used only in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. To dissipate static electricity during transfer, ground drum and connect to receiving container with bonding strap. No sparking tools should be used. Contains epoxy constituents. Avoid all possible skin contact with epoxy and amine containing products, they may cause allergic reactions. Open with care, danger of overpressure.
Avoid inhalation of vapour, dust and spray mist. Avoid contact with skin and eyes. Eating, drinking and smoking should be prohibited in area where this material is handled, stored and processed. Appropriate personal protective equipment: see Section 8. Always keep in containers made from the same material as the original one.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a cool, well-ventilated area away from incompatible materials and ignition sources. Keep out of the reach of children. Keep away from: Oxidizing agents, strong alkalis, strong acids as well as of amines, alcohols and water. No smoking. Prevent unauthorized access. Containers that are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

See separate Product Data Sheet for recommendations or industrial sector specific solutions.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
1-methoxy-2-propanol	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** Absorbed through skin. STEL 15 minutes: 560 mg/m³. STEL 15 minutes: 150 ppm. TWA 8 hours: 375 mg/m³. TWA 8 hours: 100 ppm.

SECTION 8: Exposure controls/personal protection

Biological exposure indices

Product/ingredient name	Exposure limit values
No exposure limit value known.	

Recommended monitoring procedures

Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Derived effect levels

Product/ingredient name	Type - Population - Exposure	Value	Effects
solvent naphtha (petroleum), light arom.	DNEL - Workers - Long term - Dermal	25 mg/kg bw/day	Effects: Systemic
	DNEL - Workers - Long term - Inhalation	150 mg/m³	Effects: Systemic
1-methoxy-2-propanol	DNEL - Workers - Long term - Dermal	50.6 mg/kg bw/day	Effects: Systemic
	DNEL - Workers - Long term - Inhalation	369 mg/m³	Effects: Systemic
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	DNEL - Workers - Long term - Inhalation	1500 mg/m³	Effects: Systemic
	DNEL - Workers - Long term - Dermal	300 mg/kg bw/day	Effects: Systemic
bis-[4-(2,3-epoxipropoxi)phenyl]propane	DNEL - Workers - Long term - Dermal	0.75 mg/kg bw/day	Effects: Systemic
	DNEL - Workers - Long term - Inhalation	4.93 mg/m³	Effects: Systemic
Solvent naphtha (petroleum), light arom.	DNEL - Workers - Long term - Dermal	12.5 mg/kg bw/day	Effects: Systemic
	DNEL - Workers - Long term - Inhalation	150 mg/m³	Effects: Systemic
3-(2,3-epoxypropoxy) propyl trimethoxy silane	DNEL - Workers - Long term - Dermal	10 mg/kg bw/day	Effects: Systemic
	DNEL - Workers - Long term - Inhalation	70.5 mg/m³	Effects: Systemic
4,4'-isopropylidenediphenol	DNEL - Workers - Long term - Dermal	0.031 mg/kg bw/day	Effects: Systemic
	DNEL - Workers - Long term - Inhalation	2 mg/m³	Effects: Systemic

Predicted effect concentrations

Product/ingredient name	Compartment Detail	Value
1-methoxy-2-propanol	Fresh water	10 mg/l
	Marine water	1 mg/l
	Fresh water sediment	41.6 mg/kg
	Sediment	4.7 mg/kg
	Soil	2.47 mg/kg
	Sewage Treatment Plant	100 mg/l
	Marine water sediment	5.2 mg/kg dwt
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Fresh water	0.006 mg/l
	Fresh water sediment	0.341 mg/kg dwt
	Soil	0.065 mg/kg dwt
	Marine water	0.001 mg/l
	Sewage Treatment Plant	10 mg/l
	Fresh water sediment	0.341 mg/kg dwt
	Marine water sediment	0.034 mg/kg dwt
3-(2,3-epoxypropoxy) propyl trimethoxy silane	Fresh water	0.45 mg/l
	Marine	0.045 mg/l
	Fresh water sediment	1.6 mg/kg
	Soil	0.063 mg/kg
	Sewage Treatment Plant	82 mg/l
	Marine water sediment	0.16 mg/kg
4,4'-isopropylidenediphenol	Fresh water	0.018 mg/l
	Marine water	0.016 mg/l
	Sewage Treatment Plant	320 mg/l
	Sediment	1.2 mg/kg
	Soil	3.7 mg/kg

8.2 Exposure controls

Appropriate engineering controls

Arrange sufficient ventilation by local exhaust ventilation and good general ventilation to keep the airborne concentrations of vapors or dust lowest possible and below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Individual protection measures

General : Gloves must be worn for all work that may result in soiling. Apron/coveralls/protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. Safety eyewear should be used when there is a likelihood of exposure.

SECTION 8: Exposure controls/personal protection

Hygiene measures : Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Hand protection : Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. The quality of the chemical-resistant protective gloves must be chosen as a function of the specific workplace concentrations and quantity of hazardous substances.

Since the actual work situation is unknown. Supplier of gloves should be contacted in order to find the appropriate type. Below listed glove(s) should be regarded as generic advice:

Recommended: Silver Shield / Barrier / 4H gloves, nitrile rubber (>0.3 mm), polyvinyl alcohol (PVA), Viton®
May be used: nitrile rubber (>0.1 mm)
Short term exposure: neoprene rubber (>0.1 mm), butyl rubber (>0.5 mm), natural rubber (latex) (>0.4 mm), polyvinyl chloride (PVC), butyl rubber (>0.3 mm)

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved handling this product.
Wear suitable protective clothing. Always wear protective clothing when spraying.

Respiratory protection : When the product is applied by spraying and for continuous or prolonged work always wear an air-fed respirator e.g. hood with supply of fresh or compressed air or a full face, powered air purifying filter. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If working areas have insufficient ventilation: When the product is applied by means that will not generate an aerosol such as, brush or roller wear half or totally covering mask equipped with gas filter of type A, when grinding use particle filter of type P. (EN140) Be sure to use an approved/certified respirator or equivalent.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : Liquid.

Colour : Grey.

Odour : Solvent-like

pH : Testing not relevant or not possible due to nature of the product.

Melting point/freezing point : Testing not relevant or not possible due to nature of the product.

Boiling point/boiling range : Testing not relevant or not possible due to nature of the product.

Flash point : Closed cup: 35°C (95°F)

Evaporation rate : Testing not relevant or not possible due to nature of the product.

Flammability : Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
Flammable in the presence of the following materials or conditions: oxidising materials.
Slightly flammable in the presence of the following materials or conditions: reducing materials.

Vapour pressure :

	Vapour Pressure at 20°C			Vapour pressure at 50°C		
Ingredient name	**mm Hg**	**kPa**	**Method**	**mm Hg**	**kPa**	**Method**
1-methoxy-2-propanol	8.5	1.1				

Vapour density : Not available.

Specific gravity : 1.05 g/cm³

Partition coefficient (LogKow) : Testing not relevant or not possible due to nature of the product.

Auto-ignition temperature :

Ingredient name	°C	°F	Method
1-methoxy-2-propanol	270	518	

Decomposition temperature : Testing not relevant or not possible due to nature of the product.

SECTION 9: Physical and chemical properties

Viscosity :	Aspiration hazard (H304) Not classified. Testing not relevant due to nature of the product.
Explosive properties :	Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and oxidising materials. Slightly explosive in the presence of the following materials or conditions: reducing materials and moisture.
Oxidising properties :	Testing not relevant or not possible due to nature of the product.

9.2 Other information

Solvent(s) % by weight :	Weighted average: 54 %
Water % by weight :	Weighted average: 0 %
VOC content :	571.3 g/l
VOC content, Ready-for-use mixture :	610.3 g/l
TOC Content :	Weighted average: 405 g/l
Solvent Gas :	Weighted average: 0.129 m³/l

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

The product is stable.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

10.5 Incompatible materials

Highly reactive or incompatible with the following materials: oxidising materials and acids.
Reactive or incompatible with the following materials: reducing materials, organic materials and moisture.

10.6 Hazardous decomposition products

When exposed to high temperatures (i.e. in case of fire) harmful decomposition products may be formed:

Decomposition products may include the following materials: carbon oxides halogenated compounds metal oxide/oxides

SECTION 11: Toxicological information

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

Exposure to component solvent vapor concentrations may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Solvents may cause some of the above effects by absorption through the skin. Symptoms and signs include headaches, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. If splashed in the eyes, the liquid may cause irritation and reversible damage. Accidental swallowing may cause stomach pain. Chemical lung inflammation may occur if the product is taken into the lungs via vomiting.
Epoxy and amine containing products can cause skin disorders such as allergic eczema. The allergy may arise after only a short exposure period.

Acute toxicity

SECTION 11: Toxicological information

Product/ingredient name	Result	Dose / Exposure	Effects
Solvent naphtha (petroleum), light arom.	Rat - Oral - LD50	8400 mg/kg	Toxic effects: Behavioral - Somnolence (general depressed activity) Behavioral - Tremor Lung, Thorax, or Respiration - Other changes
	Rabbit - Dermal - LD50	3160 mg/kg	
	Rat - Inhalation - LC50 Vapour	6193 mg/m³ [4 hours]	
1-methoxy-2-propanol	Rabbit - Dermal - LD50	13 g/kg	
	Rat - Oral - LD50	4016 mg/kg	
	Rabbit - Dermal - LD50	>2000 mg/kg	
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	Rat - Oral - LD50	>2000 mg/kg	
bis-[4-(2,3-epoxipropoxi)phenyl] propane	Rabbit - Dermal - LD50	20 g/kg	Toxic effects: Behavioral - Somnolence (general depressed activity) Gastrointestinal - Hypermotility, diarrhea Gross Metabolite Changes - Weight loss or decreased weight gain
Solvent naphtha (petroleum), light arom.	Rat - Oral - LD50	3492 mg/kg	
	Rabbit - Dermal - LD50	3160 mg/kg	
	Rat - Inhalation - LC50 Vapour	6193 mg/m³ [4 hours]	
3-(2,3-epoxypropoxy) propyl trimethoxy silane	Rat - Dermal - LD50	4250 mg/kg	
	Rat - Oral - LD50	7010 mg/kg	
	Rat - Inhalation - LC50 Dusts and mists	5.3 mg/l [4 hours]	
4,4'-isopropylidenediphenol	Rat - Oral - LD50	3250 mg/kg	
	Rabbit - Dermal - LD50	>2000 mg/kg	
	Rat - Oral - LD50	3250 mg/kg	

Acute toxicity estimates

Product/ingredient name	Oral mg/kg	Dermal mg/kg	Inhalation (gases) ppm	Inhalation (vapours) mg/l	Inhalation (dusts and mists) mg/l
Solvent naphtha (petroleum), light arom.	8400	3160			
1-methoxy-2-propanol	4016	13000			
bis-[4-(2,3-epoxipropoxi)phenyl]propane		20000			
Solvent naphtha (petroleum), light arom.	3492	3160			
3-(2,3-epoxypropoxy) propyl trimethoxy silane	7010	4250			5.3
4,4'-isopropylidenediphenol	3250				

Irritation/Corrosion

Product/ingredient name	Result	Species	Exposure
Solvent naphtha (petroleum), light arom.	Rabbit - Eyes - Mild irritant	Duration of treatment/ exposure: 24 hours	Amount/concentration applied: 100 microliters
1-methoxy-2-propanol	Rabbit - Eyes - Mild irritant	Duration of treatment/ exposure: 24 hours	Amount/concentration applied: 500 milligrams
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	Rabbit - Eyes - Mild irritant		
bis-[4-(2,3-epoxipropoxi)phenyl] propane	Rabbit - Skin - Irritant		
	Rabbit - Eyes - Irritant		
Solvent naphtha (petroleum), light arom.	Rabbit - Eyes - Mild irritant	Duration of treatment/ exposure: 24 hours	Amount/concentration applied: 100 microliters
	Rabbit - Respiratory - Mild irritant		
	Rabbit - Skin - Moderate irritant		
3-(2,3-epoxypropoxy) propyl trimethoxy silane	Rabbit - Eyes - Irritant		
4,4'-isopropylidenediphenol	Rabbit - Eyes - Severe irritant	Duration of treatment/ exposure: 24 hours	Amount/concentration applied: 250 Micrograms
	Rabbit - Skin - Mild irritant	Duration of treatment/ exposure: 24 hours	Amount/concentration applied: 500 milligrams

Sensitiser

Product/ingredient name	Species - Route of exposure	Result
bis-[4-(2,3-epoxipropoxi)phenyl] propane	Mouse - skin	Result: Sensitising
3-(2,3-epoxypropoxy) propyl trimethoxy silane	Guinea pig - skin	Result: Not sensitizing

SECTION 11: Toxicological information

Mutagenic effects

No known data avaliable in our database.

Carcinogenicity

No known data avaliable in our database.

Reproductive toxicity

No known data avaliable in our database.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Solvent naphtha (petroleum), light arom.	Category 3 Category 3		Respiratory tract irritation Narcotic effects
1-methoxy-2-propanol	Category 3		Narcotic effects
1,2,4-trimethylbenzene	Category 3		Respiratory tract irritation
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	Category 3		Narcotic effects
cumene	Category 3		Respiratory tract irritation
4,4'-isopropylidenediphenol	Category 3		Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
No known data avaliable in our database.			

Aspiration hazard

Product/ingredient name	Result
Solvent naphtha (petroleum), light arom.	ASPIRATION HAZARD - Category 1
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	ASPIRATION HAZARD - Category 1
cumene	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
3-(2,3-epoxypropoxy) propyl trimethoxy silane	Sub-acute - Rat - Oral - NOAEL OECD 407 [Repeated Dose 28-day Oral Toxicity Study in Rodents] 500 mg/kg [28 days]	Sub-acute - Rat - Oral - NOAEL	500 mg/kg [28 days]	
	Sub-acute - Rat - Inhalation - NOAEL OECD 412 [Repeated Dose Inhalation Toxicity: 28-day or 14-day Study] 0.225 mg/kg [14 days]	Sub-acute - Rat - Inhalation - NOAEL	0.225 mg/kg [14 days]	

11.2 Information on other hazards

Other information : No additional known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

Do not allow to enter drains or watercourses. Toxic to aquatic life with long lasting effects.

Product/ingredient name	Result	Species	Exposure
Solvent naphtha (petroleum), light arom.	Acute - LC50	Fish - *Oncorhynchus mykiss (rainbow trout)*	9.22 mg/l [96 hours]
	Acute - EC50	Daphnia - *Daphnia magna*	6.14 mg/l [48 hours]
	Acute - EC50	Algae - *Pseudokirchneriella subcapitata (green algae)*	19 mg/l [96 hours]
1-methoxy-2-propanol	Acute - LC50	Fish - *Leuciscus idus*	6812 mg/l [96 hours]
	Acute - EC50	Daphnia - *Daphnia magna (Water flea)*	23300 mg/l [48 hours]
	Acute - EC50	Algae - *Pseudokirchneriella subcapitata (green algae)*	1000 mg/l [7 days]
bis-[4-(2,3-epoxipropoxi)phenyl] propane	Acute - LC50	Fish	1.3 mg/l [96 hours]

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	Acute - EC50	Daphnia	2.1 mg/l [48 hours]
	Acute - EC50	Algae	9.4 mg/l [72 hours]
Solvent naphtha (petroleum), light arom.	Acute - LC50	Fish - *Oncorhynchus mykiss (rainbow trout)*	9.22 mg/l [96 hours]
	Acute - EC50	Algae - *Pseudokirchneriella subcapitata (green algae)*	2.6 mg/l [96 hours]
	Acute - EC50	Daphnia	3.2 mg/l [48 hours]
3-(2,3-epoxypropoxy) propyl trimethoxy silane	Acute - LC50	Fish - *Cyprinus carpio*	55 mg/l [96 hours]
	Acute - EC50	Daphnia	324 mg/l [48 hours]
4,4'-isopropylidenediphenol	Chronic - NOEC - Fresh water	Fish - Green Swordtail - *Xiphophorus helleri* - Juvenile (Fledgling, Hatchling, Weanling)	0.2 - 20 ppb [60 days]
	Chronic - NOEC - Fresh water	Daphnia - Water flea - *Daphnia magna* - Neonate	0.8 mg/l [21 days]
	Acute - LC50	Fish	7.5 mg/l [96 hours]

12.2 Persistence and degradability

Product/ingredient name	Test	Result
Solvent naphtha (petroleum), light arom.		>70% [28 days] - Readily
1-methoxy-2-propanol	OECD Ready Biodegradability - Modified OECD Screening Test	96% [28 days] - Readily
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	OECD Ready Biodegradability - Manometric Respirometry Test	80% [28 days] - Readily
bis-[4-(2,3-epoxipropoxi)phenyl] propane	OECD Ready Biodegradability - Manometric Respirometry Test	5% [28 days] - Not readily
Solvent naphtha (petroleum), light arom.		>70% [28 days] - Readily
		>60% [28 days] - Readily
	OECD Ready Biodegradability - Manometric Respirometry Test	78% [28 days] - Readily
3-(2,3-epoxypropoxy) propyl trimethoxy silane		37% [28 days] - Not readily
4,4'-isopropylidenediphenol		1 - 2% [28 days] - Not readily

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Solvent naphtha (petroleum), light arom.			Readily
1-methoxy-2-propanol			Readily
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics			Readily
bis-[4-(2,3-epoxipropoxi)phenyl] propane			Not readily
Solvent naphtha (petroleum), light arom.			Readily
3-(2,3-epoxypropoxy) propyl trimethoxy silane			Not readily
4,4'-isopropylidenediphenol			Not readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Solvent naphtha (petroleum), light arom.	-	10 - 2500	High
1-methoxy-2-propanol	<1	<100	Low
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	5 - 6.7	10 - 2500	High
Solvent naphtha (petroleum), light arom.	-	10 - 2500	High
3-(2,3-epoxypropoxy) propyl trimethoxy silane	0.5	-	Low
4,4'-isopropylidenediphenol	3.4	20 - 67	Low

12.4 Mobility in soil

Soil/water partition coefficient

Product/ingredient name	logKoc	Koc
1-methoxy-2-propanol	1.02	10.447
bis-[4-(2,3-epoxipropoxi)phenyl]propane	4.02	10465.7
3-(2,3-epoxypropoxy) propyl trimethoxy silane	2.43	266.308
4,4'-isopropylidenediphenol	3.16	1436.23

Results of PMT and vPvM assessment

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Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
Solvent naphtha (petroleum), light arom.	No	No	No	No	No	No	No
1-methoxy-2-propanol	No	No	Yes	No	No	No	Yes
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	No	No	No	No	No	No	No
bis-[4-(2,3-epoxipropoxi)phenyl]propane	No	No	No	No	No	No	No
Solvent naphtha (petroleum), light arom.	No	No	No	No	No	No	No
3-(2,3-epoxypropoxy) propyl trimethoxy silane	No	No	Yes	No	No	No	No
4,4'-isopropylidenediphenol	No	No	No	Yes	No	No	No

Mobility : The product does not meet the criteria to be considered as a PMT or vPvM.

12.5 Results of PBT and vPvB assessment

Conclusion/Summary : The product does not meet the criteria to be considered as a PBT or vPvB.

12.6 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

The generation of waste should be avoided or minimised wherever possible. Residues of the product is listed as hazardous waste. Dispose of according to all state and local applicable regulations. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Spillage, remains, discarded clothes and similar should be discarded in a fireproof container.

European waste catalogue no. (EWC) is given below.

European waste catalogue (EWC) : 08 01 11*

Packaging

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

SECTION 14: Transport information

Transport may take place according to national regulation or ADR for transport by road, RID for transport by train, IMDG for transport by sea, IATA for transport by air.

	14.1 UN / ID no.	14.2 Proper shipping name	14.3 Transport hazard class(es)	14.4 PG*	14.5 Env*	Additional information
ADR/RID Class	UN1263	PAINT	3 	III	Yes.	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg. **Tunnel code** (D/E)
IMDG Class	UN1263	PAINT. (Solvent naphtha (petroleum), light arom.)	3 	III	Yes.	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. **Emergency schedules** F-E,S-E
IATA Class	UN1263	PAINT	3 	III	Yes.	The environmentally hazardous substance mark may appear if required by other transportation regulations.

PG* : Packing group
Env.* : Environmental hazards

14.6 Special precautions for user

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH) Annex XIV - List of substances subject to authorisation - Substances of very high concern

Annex XIV

None of the components are listed.

Substances of very high concern

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
4,4'-isopropylidenediphenol	Toxic to reproduction	Recommended	9th recommendation	10/1/2019
4,4'-isopropylidenediphenol	Endocrine disrupting properties for human health	Recommended	9th recommendation	10/1/2019
4,4'-isopropylidenediphenol	Endocrine disrupting properties for environment	Recommended	9th recommendation	10/1/2019

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Not applicable.

Other EU regulations

Seveso category This product is controlled under the Seveso III Directive.

Seveso category
P5c: Flammable liquids 2 and 3 not falling under P5a or P5b E2: Hazardous to the aquatic environment - Chronic 2

15.2 Chemical safety assessment

SECTION 16: Other information

Abbreviations and acronyms :

ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
EUH statement = CLP-specific Hazard statement
RRN = REACH Registration Number
DNEL = Derived No Effect Level
PNEC = Predicted No Effect Concentration

Full text of abbreviated H statements :

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.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360F	May damage fertility.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications [CLP/GHS] :

Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Classification	Justification
FLAMMABLE LIQUIDS	On basis of test data
SERIOUS EYE DAMAGE/EYE IRRITATION	Calculation method
SKIN SENSITISATION	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation)	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects)	Calculation method
LONG-TERM (CHRONIC) AQUATIC HAZARD	Calculation method

SECTION 16: Other information

Notice to reader

Indicates information that has changed from previously issued version.

The information contained in this safety data sheet is based on the present state of knowledge and EU and national legislation. It provides guidance on health, safety and environmental aspects for handling the product in a safe way and should not be construed as any guarantee of the technical preformance or suitability for particular applications.
It is always the duty of the user/employer to ascertain that the work is planned and carried out in accordance with the national regulations.

Safe Use of Mixture Information
Hempadur 17949 Base

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

General description of the process covered

Indoor or outdoor spray painting by professionals or with brush, roller, putty knife, dipping etc. with good general room ventilation.

This safe use information is linked to : Professional spray painting and/or low-energy painting, local effect - Level II
Skin Sens. 1, Eye Irrit. 2 , Asp. Tox. 1 or Solvent.

Sector(s) of use : Industrial uses - Professional uses

Product category(ies) : Coatings and paints, thinners, paint removers

Operational conditions

Place of use : Indoor or outdoor use

Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation		Respiratory	Eye	Hands
			Type and air changes per hour				
Preparation of material for application	PROC05	More than 4 hours	Good general room ventilation - Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08a	More than 4 hours	Good general room ventilation - Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Professional application of coatings by brush or roller	PROC10	More than 4 hours	Good general room ventilation - Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Professional application of coatings by spraying	PROC11	More than 4 hours	Good general room ventilation - Outdoors	3 - 5	Wear a respirator conforming to EN140 with an assigned protection factor of at least 10.	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Good general room ventilation - Outdoors	3 - 5	None	None	None
Cleaning	PROC05	More than 4 hours	Good general room ventilation - Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Waste management	PROC08a	More than 4 hours	Good general room ventilation - Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.

See section 8 of this Safety Data Sheet for specifications.