

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



EPO 680

Version
1.2

Revision Date:
02.05.2018

SDS Number:
H52415

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

1.1 Product identifier

Trade name : EPO 680

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

Use of the Substance/Mixture : Paint

Recommended restrictions on use : For use in industrial installations or professional treatment only.

1.3 Details of the supplier of the safety data sheet

Company : Roberlo s.a.
Ctra. Nacional II, Km. 706,5
17457 Riudellots de la Selva
Spain

Telephone : +34972478060

Telefax : +34972477394

E-mail address of person responsible for the SDS : msds@roberlo.com

1.4 Emergency telephone number

+34 972 478060 (8:00-12:45 / 14:15-17:30 h) ROBERLO (Spain) (GMT + 1:00)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 2	H225: Highly flammable liquid and vapour.
Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Chronic aquatic toxicity, Category 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms :



Signal word : Danger

Hazard statements :
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

epoxy resin (average molecular weight \leq 700)
xylene (mixture of isomers)

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Paint

Hazardous components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
epoxy resin (average molecular weight \leq 700)	25068-38-6 500-033-5 603-074-00-8	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Chronic 2;	\geq 30 - < 50

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		H411	
isobutyl methyl ketone	108-10-1 203-550-1 606-004-00-4 01-2119473980-30	Flam. Liq. 2; H225 Acute Tox. 4; H332 Eye Irrit. 2; H319 STOT SE 3; H335	>= 1 - < 10
2-butoxyethanol	111-76-2 203-905-0 603-014-00-0 01-2119475108-36	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319	>= 1 - < 10
xylene (mixture of isomers)	1330-20-7 215-535-7 601-022-00-9 01-2119488216-32	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 STOT RE 2; H373 Asp. Tox. 1; H304	>= 1 - < 10
n-butyl acetate	123-86-4 204-658-1 607-025-00-1 01-2119485493-29	Flam. Liq. 3; H226 STOT SE 3; H336	>= 1 - < 10

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : Consult a physician after significant exposure.
If unconscious, place in recovery position and seek medical advice.
- In case of skin contact : If on skin, rinse well with water.
If on clothes, remove clothes.
- In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Inhalation may provoke the following symptoms:

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Headache
Vertigo
Fatigue
Weakness
Skin contact may provoke the following symptoms:
Redness
Pain
Ingestion may provoke the following symptoms:
Abdominal pain
Nausea
Vomiting
Diarrhoea

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.
Use a water spray to cool fully closed containers.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

For contact information in case of emergency, see section 1. For information on safe handling, see section 7. For exposure controls and personal protection measures, see section 8. For subsequent waste disposal, follow the recommendations in section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material.
Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures : When using do not eat or drink. When using do not smoke.

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Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Storage period : 12 Months

Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : For the use of this product do not exist particular recommendations apart from that already indicated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
barium sulfate	7727-43-7	TWA (Inhalable)	10 mg/m ³	GB EH40
Further information	For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m ⁻³ 8-hour TWA of inhalable dust or 4 mg.m ⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used			
		TWA	4 mg/m ³	GB EH40

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	(Respirable)		
Further information	<p>For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m⁻³ 8-hour TWA of inhalable dust or 4 mg.m⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used</p>		
	TWA (inhalable dust)	10 mg/m ³	GB EH40
Further information	<p>For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m⁻³ 8-hour TWA of inhalable dust or 4 mg.m⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used</p>		
	TWA (Respirable dust)	4 mg/m ³	GB EH40
Further information	<p>For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for</p>		

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	<p>sampling and gravimetric analysis of respirable and inhalable dust, The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m⁻³ 8-hour TWA of inhalable dust or 4 mg.m⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used</p>			
Talc	14807-96-6	TWA (Respirable dust)	1 mg/m ³	GB EH40
Further information	<p>For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, Talc is defined as the mineral talc together with other hydrous phyllosilicates including chlorite and carbonate materials which occur with it, but excluding amphibole asbestos and crystalline silica., The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m⁻³ 8-hour TWA of inhalable dust or 4 mg.m⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used</p>			
isobutyl methyl ketone	108-10-1	TWA	20 ppm 83 mg/m ³	2000/39/EC
Further information	Indicative			
		STEL	50 ppm 208 mg/m ³	2000/39/EC
Further information	Indicative			
		TWA	50 ppm	GB EH40

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			208 mg/m ³	
Further information	Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
		STEL	100 ppm 416 mg/m ³	GB EH40
Further information	Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
2-butoxyethanol	111-76-2	TWA	20 ppm 98 mg/m ³	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	50 ppm 246 mg/m ³	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		TWA	25 ppm	GB EH40
Further information	Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
		STEL	50 ppm	GB EH40
Further information	Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
xylene (mixture of isomers)	1330-20-7	TWA	50 ppm 220 mg/m ³	GB EH40
Further information	Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
		STEL	100 ppm 441 mg/m ³	GB EH40
Further information	Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
		TWA	50 ppm 221 mg/m ³	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	100 ppm 442 mg/m ³	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
n-butyl acetate	123-86-4	TWA	150 ppm 724 mg/m ³	GB EH40
		STEL	200 ppm 966 mg/m ³	GB EH40
silica amorphous	112926-00-8	TWA (inhalable dust)	6 mg/m ³	GB EH40
Further information	For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m ⁻³ 8-hour TWA of inhalable dust or 4 mg.m ⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed			

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	'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used		
	TWA (Respirable dust)	2.4 mg/m ³	GB EH40
Further information	For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m ⁻³ 8-hour TWA of inhalable dust or 4 mg.m ⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used		

Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
isobutyl methyl ketone	108-10-1	4-methylpentan-2-one: 20 micromol per litre (Urine)	After shift	GB EH40 BAT
2-butoxyethanol	111-76-2	butoxyacetic acid: 240 Millimoles per mole Creatinine (Urine)	After shift	GB EH40 BAT

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular	Workers	Inhalation	Long-term systemic effects	12.25 mg/m ³

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weight ≤ 700)				
2-butoxyethanol	Workers	Inhalation	Long-term systemic effects	98 mg/m ³
xylene	Workers	Inhalation	Long-term systemic effects	77 mg/m ³
n-butyl acetate	Workers	Inhalation	Long-term systemic effects	480 mg/m ³

8.2 Exposure controls

Personal protective equipment

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles

Hand protection
Material : Solvent-resistant gloves

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : viscous liquid

Colour : yellow

Odour : characteristic

pH : Not applicable

Melting point/range : not determined

Boiling point/boiling range : not determined

Flash point : 16 °C
Method: ISO 1523, closed cup
Setaflash

Upper explosion limit / Upper flammability limit : not determined

Lower explosion limit / Lower flammability limit : not determined

Vapour pressure : not determined

Density : 1.38 g/cm³ (20 °C)

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Method: ISO 2811-1

Solubility(ies)

Water solubility : immiscible

Viscosity

Viscosity, dynamic : 747 mPa.s (20 °C)
Method: ISO 2555

Viscosity, kinematic : > 20.5 mm²/s (40 °C)

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

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Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Components:

epoxy resin (average molecular weight \leq 700):

Acute oral toxicity : LD50 Oral (Rat): 11,400 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rabbit): 2,000 mg/kg
Method: OECD Test Guideline 402

isobutyl methyl ketone:

Acute oral toxicity : LD50 Oral (Rat): 2,080 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 8.2 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 20,000 mg/kg
Method: OECD Test Guideline 402

2-butoxyethanol:

Acute oral toxicity : Acute toxicity estimate: 500 mg/kg
Method: Converted acute toxicity point estimate

Acute inhalation toxicity : LC50 (Rat): 2.39 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403

Acute dermal toxicity : Acute toxicity estimate: 1,100 mg/kg
Method: Converted acute toxicity point estimate

xylene (mixture of isomers):

Acute oral toxicity : LD50 Oral (Rat): 4,300 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 22.08 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403

Acute dermal toxicity : Acute toxicity estimate: 1,100 mg/kg
Method: Converted acute toxicity point estimate

n-butyl acetate:

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Acute oral toxicity : LD50 Oral (Rat): 10,768 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 23.4 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 17,600 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Product:

Result: Skin irritation

Serious eye damage/eye irritation

Product:

Remarks: Severe eye irritation

Respiratory or skin sensitisation

Product:

Result: May cause sensitisation by skin contact.

Germ cell mutagenicity

Product:

Germ cell mutagenicity-
Assessment : Based on available data, the classification criteria are not met.

Carcinogenicity

Product:

Carcinogenicity -
Assessment : Based on available data, the classification criteria are not met.

Reproductive toxicity

Product:

Reproductive toxicity -
Assessment : Based on available data, the classification criteria are not met.

STOT - single exposure

Product:

Remarks: Based on available data, the classification criteria are not met.

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STOT - repeated exposure

Product:

Remarks: Based on available data, the classification criteria are not met.

Aspiration toxicity

Product:

Based on available data, the classification criteria are not met.

Further information

Product:

Remarks: Solvents may degrease the skin.

SECTION 12: Ecological information

12.1 Toxicity

Components:

epoxy resin (average molecular weight \leq 700):

Toxicity to fish : LC50 (Fish): 1.5 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia (water flea)): 1.1 mg/l
aquatic invertebrates : Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 0.22 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

isobutyl methyl ketone:

Toxicity to fish : LC50 (Fish): 179 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia (water flea)): 200 mg/l
aquatic invertebrates : Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 400 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

2-butoxyethanol:

Toxicity to fish : LC50 (Fish): 1,815 mg/l
Exposure time: 96 h

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Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 500 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

xylene (mixture of isomers):

Toxicity to fish : LC50 (Fish): 14 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 16 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): > 10 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

n-butyl acetate:

Toxicity to fish : LC50 (Fish): 18 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 32 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 675 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Other adverse effects

Product:

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Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

14.1 UN number

ADR : 1263
IMDG : UN 1263
IATA (Cargo) : UN 1263

14.2 UN proper shipping name

ADR : PAINT
IMDG : PAINT
IATA (Cargo) : Paint

14.3 Transport hazard class(es)

ADR : 3
IMDG : 3
IATA (Cargo) : 3

14.4 Packing group

ADR
Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3

IMDG
Packing group : III
Labels : 3
EmS Code : F-E, S-E

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IATA (Cargo)

Packing instruction (cargo aircraft) : 366
Packing instruction (LQ) : Y344
Packing group : III
Labels : Flammable Liquids

14.5 Environmental hazards

ADR

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

14.6 Special precautions for user

Remarks : Exemption: PG III not PG II according to section 2.2.3.1.4 (ADR), 2.3.2.2 (IMDG).

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
P5c	FLAMMABLE LIQUIDS	5,000 t	50,000 t
E2	ENVIRONMENTAL HAZARDS	200 t	500 t

Other regulations:

The product is classified and labelled in accordance with EC directives or respective national laws.

15.2 Chemical safety assessment

The supplier has not carried out evaluation of chemical safety.

SECTION 16: Other information

Full text of H-Statements

H225 : Highly flammable liquid and vapour.
H226 : Flammable liquid and vapour.
H302 : Harmful if swallowed.
H304 : May be fatal if swallowed and enters airways.

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H312	:	Harmful in contact with skin.
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 if inhaled.
H411	:	Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Chronic	:	Chronic aquatic toxicity
Asp. Tox.	:	Aspiration hazard
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
STOT RE	:	Specific target organ toxicity - repeated exposure
STOT SE	:	Specific target organ toxicity - single exposure
2000/39/EC	:	Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
GB EH40	:	UK. EH40 WEL - Workplace Exposure Limits
GB EH40 BAT	:	UK. Biological monitoring guidance values
2000/39/EC / TWA	:	Limit Value - eight hours
2000/39/EC / STEL	:	Short term exposure limit
GB EH40 / TWA	:	Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL	:	Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship;

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REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Sources of key data used to compile the Safety Data Sheet : <http://echa.europa.eu>, <http://eur-lex.europa.eu>

Classification of the mixture:

Flam. Liq. 2	H225
Skin Irrit. 2	H315
Eye Irrit. 2	H319
Skin Sens. 1	H317
Aquatic Chronic 2	H411

Classification procedure:

Based on product data or assessment
Calculation method
Calculation method
Calculation method
Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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