



Safety Data Sheet

HEMPEL'S CURING AGENT 97371

Globally Harmonized System of Classification and Labelling of Chemicals - India

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

1.1 Product identifier

Product name : HEMPEL'S CURING AGENT 97371
Product identity : 9737100000
Product type : Curing agent

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 : (see base component)
Identified uses : Industrial applications, Used by spraying.

1.3 Details of the supplier of the safety data sheet

Company details : Hempel Paints (India) Pvt. Ltd.
Plot No. B-3, M.I.D.C.
Sinnar Indl. Area, Malegaon
Sinnar, Nashik, 422103
Tel.: +91 2261392555
hempel@hempel.com

Date of issue : 13 September 2013

Date of previous issue : 13 August 2013.

1.4 Emergency telephone number

Emergency telephone number (with hours of operation)

+91 2261392555 (08.00 - 17.00)
See section 4 First aid measures.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

GHS Classification

FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY: ORAL - Category 4
ACUTE TOXICITY: SKIN - Category 4
SKIN CORROSION/IRRITATION - Category 1
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
SKIN SENSITIZATION - Category 1

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

2.2 Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : Flammable liquid and vapor.
Harmful if swallowed or in contact with skin.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.

Precautionary statements :

Prevention : Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Avoid breathing vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.



SECTION 2: Hazards identification

Response :	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
Storage :	Store locked up. Store in a well-ventilated place. Keep cool.
Disposal :	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazardous ingredients :	xylene N,N-diethyl-1,3-diaminopropane benzyl alcohol m-Xylylene-diamine

2.3 Other hazards

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Product/ingredient name	Identifiers	%	GHS Classification
xylene	1330-20-7	20 - <25	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY: SKIN - Category 4 ACUTE TOXICITY: INHALATION - Category 4 SKIN CORROSION/IRRITATION - Category 2
N,N-diethyl-1,3-diaminopropane	104-78-9	10 - <20	FLAMMABLE LIQUIDS - Category 3 CORROSIVE TO METALS - Category 1 ACUTE TOXICITY: ORAL - Category 4 ACUTE TOXICITY: SKIN - Category 3 SKIN CORROSION/IRRITATION - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SKIN SENSITIZATION - Category 1
benzyl alcohol	100-51-6	7 - <25	ACUTE TOXICITY: ORAL - Category 4 ACUTE TOXICITY: INHALATION - Category 4
iso-butanol	78-83-1	5 - <10	FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation and Narcotic effects] - Category 3
ethylbenzene	100-41-4	3 - <7	FLAMMABLE LIQUIDS - Category 2
m-Xylylene-diamine	1477-55-0	3 - <5	ACUTE TOXICITY: INHALATION - Category 4 ACUTE TOXICITY: ORAL - Category 4 SKIN CORROSION/IRRITATION - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SKIN SENSITIZATION - Category 1
3-(2-aminoethylamino) propyltrimethoxysilane	1760-24-3	3 - <5	ACUTE TOXICITY: INHALATION - Category 4 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SKIN SENSITIZATION - Category 1
2-hydroxy benzoic acid	69-72-7	1 - <3	AQUATIC TOXICITY (CHRONIC) - Category 2 ACUTE TOXICITY: ORAL - Category 4 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 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.

Occupational exposure limits, if available, are listed in Section 8.



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 102 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.
Inhalation :	Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Give nothing by mouth. If unconscious, place in recovery position and get medical attention immediately.
Skin contact :	Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners. In case of burns flush with water until the pain ceases. While flushing remove clothing from the affected area unless it is burnt into the skin. If hospital treatment is necessary flushing must continue during transfer and until the hospital staff takes over the treatment.
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 damage.
Inhalation :	Corrosive to the respiratory tract. Causes burns. Serious effects may be delayed following exposure.
Skin contact :	Causes severe burns. Harmful in contact with skin. May cause an allergic skin reaction.
Ingestion :	Harmful if swallowed. May cause burns to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact :	Adverse symptoms may include the following: pain watering redness
Inhalation :	Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact :	Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion :	Adverse symptoms may include the following: stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician :	If gasses have been inhaled, from the decomposition of the product, symptoms may be delayed. 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: alcohol resistant foam, CO₂, powders, water spray.
Not to be used: waterjet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. This material is harmful 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 nitrogen oxides metal oxide/oxides

5.3 Advice for firefighters

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

Avoid all direct contact with the spilled material. Exclude sources of ignition and be aware of explosion hazard. Ventilate the area. Avoid breathing vapor 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 spilled 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.

6.3 Methods and materials for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Approach 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 spilled 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. 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 for flammable liquids. 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. No smoking. Prevent unauthorized access. Containers that are opened must be carefully resealed and kept upright to prevent leakage.



SECTION 7: Handling and storage

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

Product/ingredient name	Exposure limit values
xylene	EU OEL (Europe, 12/2009). Absorbed through skin. STEL: 442 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 221 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
iso-butanol	ACGIH TLV (United States, 3/2012). TWA: 152 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
ethylbenzene	EU OEL (Europe, 12/2009). Absorbed through skin. STEL: 884 mg/m ³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 442 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
m-Xylylene-diamine	EU OEL (Europe, 2/2010). Absorbed through skin. (ACGIH) C: 0.1 mg/m ³

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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.

8.2 Exposure controls

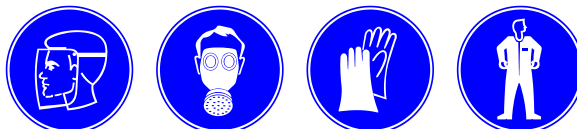
Appropriate engineering controls

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 workstation 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.



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 and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Hand protection :

Wear chemical-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.



SECTION 8: Exposure controls/personal protection

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 / 4H gloves, Viton®
May be used: polyvinyl alcohol (PVA), neoprene rubber, butyl rubber
Not recommended: nitrile rubber, natural rubber (latex), polyvinyl chloride (PVC)

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. Chemical-resistant apron.
Respiratory protection :	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. 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. 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.
Color :	Transparent
Odor :	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: 25°C (77°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.
Lower and upper explosive (flammable) limits :	0.6 - 13 vol %
Vapor pressure :	Testing not relevant or not possible due to nature of the product.
Vapor density :	Testing not relevant or not possible due to nature of the product.
Relative density :	0.97 g/cm ³
Solubility(ies) :	Partially soluble in the following materials: cold water and hot water.
Partition coefficient (LogKow) :	Testing not relevant or not possible due to nature of the product.
Auto-ignition temperature :	Lowest known value: 415°C (779°F) (iso-butanol).
Decomposition temperature :	Testing not relevant or not possible due to nature of the product.
Viscosity :	Testing not relevant or not possible due to nature of the product.
Explosive properties :	Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge and heat. Explosive in the presence of the following materials or conditions: oxidizing materials. Slightly explosive in the presence of the following materials or conditions: reducing materials.
Oxidizing properties :	Testing not relevant or not possible due to nature of the product.

9.2 Other information

Solvent(s) % by weight :	Weighted average: 48 %
Water % by weight :	Weighted average: 0 %
VOC content :	Weighted average: 366 g/l (Calculated value for the mixture)



SECTION 9: Physical and chemical properties

TOC Content : Weighted average: 313 g/l
Solvent Gas : Weighted average: 0.139 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 pressurize, 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: oxidizing materials.

Reactive or incompatible with the following materials: reducing materials.

Slightly reactive or incompatible with the following materials: organic materials.

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 nitrogen oxides metal oxide/oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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.

Inhalation of a corrosive substance may result in health effects such as stinging, coughing and in extreme cases, dyspnoea or loss of consciousness with a risk of lung damage, possibly lung oedema. Cauterization of skin and mucous membrane. If splashed in the eyes, the liquid may cause irreversible damage. Accidental swallowing may cause stinging and cauterization to mouth, oesophagus and stomach. Symptoms and signs include bloody vomiting, chock and loss of consciousness.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	6350 ppm	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
N,N-diethyl-1,3-diaminopropane	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Dermal	Rabbit	750 uL/kg	-
	LD50 Dermal	Rat	525 mg/kg	-
benzyl alcohol	LD50 Oral	Rat	410 mg/kg	-
	LD50 Oral	Rat	1230 mg/kg	-
	LC50 Inhalation Vapor	Rat	19200 mg/m ³	4 hours
iso-butanol	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	2460 mg/kg	-
	LD50 Dermal	Rabbit	>5000 mg/kg	-
ethylbenzene	LD50 Oral	Rat	3500 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	1.34 mg/l	4 hours
	LD50 Dermal	Rabbit	2 g/kg	-
m-Xylylene-diamine	LD50 Oral	Rat	930 mg/kg	-
	LD50 Oral	Rat	2413 mg/kg	-
	LD50 Oral	Rat	2413 mg/kg	-
3-(2-aminoethylamino) propyltrimethoxysilane	LD50 Oral	Rat	2413 mg/kg	-

**SECTION 11: Toxicological information****Acute toxicity estimates**

Route	ATE value
Oral Dermal Inhalation (gases) Inhalation (vapors)	1851 mg/kg 1999.5 mg/kg 22083.8 ppm 44.78 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure
xylene	Eyes - Severe irritant Skin - Moderate irritant	Rabbit Rabbit	- -	24 hours 5 milligrams 24 hours 500 milligrams
N,N-diethyl-1,3-diaminopropane	Skin - Severe irritant Eyes - Severe irritant	Rabbit Rabbit	- -	- -
benzyl alcohol	Skin - Mild irritant Skin - Moderate irritant	Man Rabbit	- -	48 hours 16 milligrams 24 hours 100 milligrams
ethylbenzene	Skin - Mild irritant Respiratory - Mild irritant	Rabbit Rabbit	- -	24 hours 15 milligrams -
m-Xylylene-diamine	Eyes - Mild irritant Eyes - Severe irritant Skin - Severe irritant	Rabbit Rabbit Rabbit	- - -	- 24 hours 50 Micrograms 24 hours 750 Micrograms
3-(2-aminoethylamino) propyltrimethoxysilane	Respiratory - Severe irritant Eyes - Severe irritant Skin - Mild irritant	Rabbit Rabbit Rabbit	- - -	- 15 milligrams 500 milligrams

Sensitizer

Product/ingredient name	Route of exposure	Species	Result
N,N-diethyl-1,3-diaminopropane	skin	Guinea pig	Sensitizing

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
iso-butanol	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

Product/ingredient name	Result
No known data available in our database.	

Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential chronic health effects

Sensitization : Contains N,N-diethyl-1,3-diaminopropane, m-Xylylene-diamine, 3-(2-aminoethylamino) propyltrimethoxysilane. May produce an allergic reaction.

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. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**SECTION 12: Ecological information**

Product/ingredient name	Result	Species	Exposure
xylene	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
N,N-diethyl-1,3-diaminopropane	Acute LC50 13.5 mg/l	Fish	96 hours
	Acute EC50 30 mg/l	Algae	72 hours
benzyl alcohol	Acute EC50 30.2 mg/l	Daphnia	48 hours
	Acute IC50 700 mg/l	Algae	72 hours
iso-butanol	Acute LC50 10000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute LC50 600000 µg/l Marine water	Crustaceans - Artemia salina - Nauplii	48 hours
	Acute LC50 1030000 - 1200000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1000000 - 3000000 µg/l Marine water	Fish - Alburnus alburnus	96 hours
ethylbenzene	Chronic NOEC 4000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 6530 - 9460 µg/l Fresh water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 1.8 mg/l	Daphnia	48 hours
m-Xylylene-diamine	Chronic NOEC <1000 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 12 mg/l	Algae	72 hours
	Acute EC50 15.2 mg/l	Daphnia - Daphnia	48 hours
	Acute LC50 75 mg/l	Fish - Leuciscus idus	96 hours
	Acute NOEC 4.7 mg/l	Daphnia	21 days
2-hydroxy benzoic acid	Acute EC50 870 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
xylene	-	>60 % - Readily - 28 days	-	-
N,N-diethyl-1,3-diaminopropane	OECD 301A 301A Ready Biodegradability - DOC Die-Away Test	0 % - Not readily - 28 days	-	-
benzyl alcohol	OECD 301C 301C Ready Biodegradability - Modified MITI Test (I)	92 - 96 % - Readily - 14 days	-	-
ethylbenzene	-	>70 % - Readily - 28 days	-	-
m-Xylylene-diamine	OECD 301B 301B Ready Biodegradability - CO ₂ Evolution Test	49 % - Inherent - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene	-	-	Readily
N,N-diethyl-1,3-diaminopropane	-	-	Not readily
benzyl alcohol	-	-	Readily
ethylbenzene	-	-	Readily
m-Xylylene-diamine	-	-	Inherent

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
xylene	3.12	8.1 - 25.9	low
N,N-diethyl-1,3-diaminopropane	0.3	-	low
benzyl alcohol	0.87	1.37	low
iso-butanol	1	-	low
ethylbenzene	3.6	-	low
m-Xylylene-diamine	0.18	2.69	low
2-hydroxy benzoic acid	2.21 - 2.26	-	low

12.4 Mobility in soilSoil/water partition coefficient (K_{oc}) : No known data available in our database.

Mobility : No known data available in our database.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

**SECTION 12: Ecological information****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 minimized wherever possible.
Residues of the product is listed as hazardous waste. Dispose of according to all state and local applicable regulations.
Spillage, remains, discarded clothes and similar should be discarded in a fireproof container.

Packaging

The generation of waste should be avoided or minimized 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 no.	14.2 Proper shipping name	14.3 Transport hazard class(es)	14.4 PG*	14.5 Env*	Additional information
ADR/RID Class	UN3470	PAINT, CORROSIVE, FLAMMABLE	8 3  	II	No.	
IMDG Class	UN3470	PAINT, CORROSIVE, FLAMMABLE	8 3  	II	No.	Emergency schedules (EmS) F-E, S-C
IATA Class	UN3470	PAINT, CORROSIVE, FLAMMABLE	8 3  	II	No.	-

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 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****SECTION 16: Other information**

Abbreviations and acronyms :

ATE = Acute Toxicity Estimate

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

DNEL = Derived No Effect Level

PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number

GHS Classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY: ORAL - Category 4 ACUTE TOXICITY: SKIN - Category 4 SKIN CORROSION/IRRITATION - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SKIN SENSITIZATION - Category 1	On basis of test data Calculation method Calculation method Calculation method Calculation method 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 performance 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.