

# SAFETY DATA SHEET

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

### 1.1 Product identifier

**Product name** : HARDENER FOR POLYESTERS

**Product code** : PH0333/00

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

**Material uses** : Paint or paint related material.

: Industrial use only.

### 1.3 Details of the supplier of the safety data sheet

SHERWIN-WILLIAMS Italy S.r.l.

Via del Fiffo, 12 - 40065 Pianoro (BO)

Italia - C.P. 18

Cod. Fisc. e Reg. Impr. Bo 08866930152

**e-mail address of person responsible for this SDS** : regulatory.SWI@sherwin.com

### 1.4 Emergency telephone number

#### National advisory body/Poison Center

**Telephone number** : 111 (general public) /0344 892 111 (Medical professional (NHS) only)

#### Supplier

**Telephone number** : +39 051 770511

**Hours of operation** : Emergency contact available 24 hours a day

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Org. Perox. D, H242

Acute Tox. 4, H332

Skin Corr. 1B, H314

Eye Dam. 1, H318

Skin Sens. 1, H317

Muta. 2, H341

Repr. 2, H361fd (Fertility and Unborn child)

Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

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

### 2.2 Label elements

**Hazard pictograms** :



**SECTION 2: Hazards identification**

**Signal word** : Danger

**Hazard statements** : Heating may cause a fire.  
Harmful if inhaled.  
Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.  
Suspected of damaging fertility. Suspected of damaging the unborn child.  
Suspected of causing genetic defects.  
Harmful to aquatic life with long lasting effects.

**Precautionary statements**

**Prevention** : Obtain special instructions before use. Wear protective gloves. Wear protective clothing. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep only in original packaging. Keep cool. Avoid release to the environment.

**Response** : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or physician. IF IN EYES: Immediately call a POISON CENTER or physician.

**Storage** : Protect from sunlight. Store separately.

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazardous ingredients** : Methyl Ethyl Ketone Peroxide  
Diacetone Alcohol  
1,1-Dimethylethyl Hydroperoxide

**Supplemental label elements** : FOR INDUSTRIAL USE ONLY

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

**Special packaging requirements**

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 Mixture**

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Dimethyl Phthalate	REACH #: 01-2119437229-36 EC: 205-011-6 CAS: 131-11-3	≥25 - ≤50	Not classified.	[2]
Methyl Ethyl Ketone Peroxide	REACH #: 01-2119514691-43 EC: 215-661-2 CAS: 1338-23-4	≥25 - ≤31	Org. Perox. D, H242 Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318	[1] [2]

**SECTION 3: Composition/information on ingredients**

Diacetone Alcohol	Index: ID670 REACH #: 01-2119473975-21 EC: 204-626-7 CAS: 123-42-2	≥10 - <20	Flam. Liq. 3, H226 Eye Irrit. 2, H319 Repr. 2, H361fd (Fertility and Unborn child) STOT SE 3, H335	[1] [2]
1,1-Dimethylethyl Hydroperoxide	Index: 603-016-00-1 REACH #: 01-2119446670-40 EC: 200-915-7 CAS: 75-91-2	≤10	Flam. Liq. 3, H226 Org. Perox. F, H242 Acute Tox. 4, H302 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 Aquatic Chronic 2, H411  <b>See Section 16 for the full text of the H statements declared above.</b>	[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, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

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 unconscious, place in recovery position and seek medical advice.
- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. 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.
- 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. Wash clothing before reuse.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.
- 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**

## **SECTION 4: First aid measures**

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit 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. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture 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.

Contains tert-butyl hydroperoxide. May produce an allergic reaction.

### **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.

See toxicological information (Section 11)

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

**Suitable extinguishing media** : Recommended: alcohol-resistant foam, carbon dioxide, powders.

**Unsuitable extinguishing media** : Do not use water jet.

### **5.2 Special hazards arising from the substance or mixture**

**Hazards from the substance or mixture** : Fire will produce dense black smoke. CAUTION: May re-ignite itself after fire is extinguished. Material supports combustion. In case of fire and/or explosion do not breathe fumes. Exposure to decomposition products may cause a health hazard.

**Hazardous combustion products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

### **5.3 Advice for firefighters**

**Special protective actions for fire-fighters** : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

**Special protective equipment for fire-fighters** : Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel** : Exclude sources of ignition and ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8.

Keep unnecessary and unprotected personnel from entering.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### **6.2 Environmental precautions**

: Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

## SECTION 6: Accidental release measures

**6.3 Methods and materials for containment and cleaning up** : 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). The waste should NOT be confined. Preferably clean with a detergent. Avoid using solvents.

**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

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**7.1 Precautions for safe handling** : 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 only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear antistatic footwear and clothing and floors should be of the conducting type. Keep away from heat, sparks and flame. No sparking tools should be used. Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on appropriate personal protective equipment (see Section 8). Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one. Comply with the health and safety at work laws. Do not allow to enter drains or watercourses. Avoid confinement. Do not allow to dry out. Avoid shock and friction. Explosive when dry.

### Information on fire and explosion protection

Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Use explosion-proof electrical (ventilating and lighting) equipment.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapors in all cases. In such circumstances, they should wear a compressed-air-fed respirator during the spraying process and until the particulate and solvent vapor concentrations have fallen below the exposure limits.

**7.2 Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations.

### Notes on joint storage

Keep away from reducing agents, heavy metal compounds and alkaline and acidic materials.

### Additional information on storage conditions

Observe label precautions. Do not store above the following temperature: 25°C (77°F). Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight.

Keep container tightly closed.

Keep away from sources of ignition. No smoking. Prevent unauthorized access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep only in the original container.

## SECTION 7: Handling and storage

Contaminated absorbent material may pose the same hazard as the spilled product.

### 7.3 Specific end use(s)

**Recommendations** : Not available.

**Industrial sector specific solutions** : Not available.

Good housekeeping standards, regular safe removal of waste materials and regular maintenance of spray booth filters will minimise the risks of spontaneous combustion and other fire hazards.

**Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations.**

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
Dimethyl Phthalate	<b>EH40/2005 WELs (United Kingdom (UK), 8/2018).</b> STEL: 10 mg/m <sup>3</sup> 15 minutes. TWA: 5 mg/m <sup>3</sup> 8 hours.
Methyl Ethyl Ketone Peroxide	<b>EH40/2005 WELs (United Kingdom (UK), 8/2018).</b> STEL: 1.5 mg/m <sup>3</sup> 15 minutes. STEL: 0.2 ppm 15 minutes.
Diacetone Alcohol	<b>EH40/2005 WELs (United Kingdom (UK), 8/2018).</b> STEL: 362 mg/m <sup>3</sup> 15 minutes. STEL: 75 ppm 15 minutes. TWA: 241 mg/m <sup>3</sup> 8 hours. TWA: 50 ppm 8 hours.

**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.

: Regular monitoring of all work areas should be carried out at all times, including areas that may not be equally ventilated.

#### DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Methyl Ethyl Ketone Peroxide	DNEL	Long term Dermal	1.33 mg/kg	Workers	Systemic
	DNEL	Long term Inhalation	2.35 mg/m <sup>3</sup>	Workers	Systemic
Diacetone Alcohol	DNEL	Long term Dermal	9.4 mg/kg	Workers	Systemic
	DNEL	Long term Inhalation	66.4 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	3.4 mg/kg	General population [Human via the	Systemic

**SECTION 8: Exposure controls/personal protection**

1,1-Dimethylethyl Hydroperoxide	DNEL	Long term Inhalation	11.8 mg/m <sup>3</sup>	environment] General population [Human via the environment]	Systemic
	DNEL	Long term Oral	3.4 mg/kg	General population [Human via the environment]	Systemic
	DNEL	Short term Inhalation	240 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Inhalation	120 mg/m <sup>3</sup>	General population [Consumers]	Local
	DNEL	Long term Inhalation	3.08 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	0.91 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	DNEL	Short term Inhalation	10.37 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	3.22 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	0.83 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	0.75 mg/m <sup>3</sup>	General population [Consumers]	Local
	DNEL	Short term Inhalation	21.34 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Inhalation	12.81 mg/m <sup>3</sup>	General population [Consumers]	Local
	DNEL	Long term Dermal	12.5 mg/kg	Workers	Systemic
	DNEL	Long term Dermal	7.5 mg/kg	General population [Consumers]	Systemic
	DNEL	Long term Oral	0.26 mg/kg	General population [Consumers]	Systemic

**PNECs**

Product/ingredient name	Compartment Detail	Value	Method Detail
Methyl Ethyl Ketone Peroxide	Fresh water	0.005 mg/l	-
	Marine water	0.05 mg/m <sup>3</sup>	-
	Fresh water sediment	0.087 mg/kg	-
	Marine water sediment	0.072 mg/kg	-
	Soil	0.014 mg/kg	-
	Sewage Treatment Plant	1.2 mg/l	-
	Diacetone Alcohol	Fresh water sediment	9.06 mg/kg
Marine water sediment		0.91 mg/kg	-
Soil		0.63 mg/kg	-
Fresh water		2 mg/l	-
Marine water		0.2 mg/l	-
Sewage Treatment Plant		82 mg/l	-
1,1-Dimethylethyl Hydroperoxide		Fresh water	1.5 mg/m <sup>3</sup>
	Marine water	0.15 mg/m <sup>3</sup>	-
	Sewage Treatment	0.17 mg/l	-

**SECTION 8: Exposure controls/personal protection**

	Plant		
	Fresh water sediment	6.21 mg/l	-
	Marine water sediment	0.621 mg/l	-
	Soil	0.36 mg/l	-

**8.2 Exposure controls**

- Appropriate engineering controls** :
- Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn. Use explosion-proof ventilation equipment.
  - Users are advised to consider national Occupational Exposure Limits or other equivalent values.

**Individual protection measures**

- Hygiene measures** :
- Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

- Eye/face protection** :
- Use safety eyewear designed to protect against splash of liquids.

**Skin protection**

**Hand protection**

**Gloves**

- Wear suitable gloves tested to EN374.
- Gloves for short term exposure/splash protection (less than 10 min): Nitrile >0.12 mm  
Gloves for splash protection need to be changed immediately when in contact with chemicals.  
For long term exposure or spills (breakthrough time >480 min): Use PE laminate gloves as under gloves.  
Due to many conditions (e.g. temperature, abrasion) the practical usage of a chemical protective glove in practice may be much shorter than the permeation time determined through testing.  
There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.  
The breakthrough time must be greater than the end use time of the product.  
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.  
Gloves should be replaced regularly and if there is any sign of damage to the glove material.  
Always ensure that gloves are free from defects and that they are stored and used correctly.  
The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.  
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.  
The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

**Body protection**

- Personnel should wear antistatic clothing made of natural fibers or of high-temperature-resistant synthetic fibers. Wash clothing before reuse.
- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection**

- Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**



## SECTION 8: Exposure controls/personal protection

- : Application methods:  
Brush or roller. Approved/certified respirator with organic vapor cartridge. Filter type: A2 P2 (EN14387).  
Manual spraying. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

**Environmental exposure controls** : Do not allow to enter drains or watercourses.

**Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.**

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Liquid.  
**Color** : Not available.  
**Odor** : None  
**Odor threshold** : Not available.  
**pH** : Not relevant/applicable due to nature of the product.  
**Melting point/freezing point** : Not relevant/applicable due to nature of the product.  
**Initial boiling point and boiling range** : 135°C  
**Flash point** : Closed cup: 62°C [Pensky-Martens Closed Cup]  
**Evaporation rate** : 0.12 (butyl acetate = 1)  
**Flammability (solid, gas)** : Not relevant/applicable due to nature of the product.  
**Upper/lower flammability or explosive limits** : LEL: 0.94% (Dimethyl Phthalate)  
UEL: 8.03% (Dimethyl Phthalate)  
**Vapor pressure** : 0.16 kPa [at 20°C]  
**Vapor density** : 4 [Air = 1]  
**Relative density** : 1.08  
**Solubility(ies)** : Not relevant/applicable due to nature of the product.  
**Partition coefficient: n-octanol/water** : Not relevant/applicable due to nature of the product.  
**Auto-ignition temperature** : Not relevant/applicable due to nature of the product.  
**Decomposition temperature** : Not relevant/applicable due to nature of the product.  
**Viscosity** : Kinematic (40°C): >0.205 cm<sup>2</sup>/s  
**Explosive properties** : Under normal conditions of storage and use, hazardous reactions will not occur.  
**Oxidizing properties** : Under normal conditions of storage and use, hazardous reactions will not occur.

## 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** : Hazardous reactions or instability may occur under certain conditions of storage or use.

## SECTION 10: Stability and reactivity

**10.3 Possibility of hazardous reactions** : Hazardous reactions or instability may occur under certain conditions of storage or use.  
Conditions may include the following:  
temperature increase  
high temperature  
Reactions may include the following:  
hazardous decomposition  
risk of causing fire  
Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid** : When exposed to high temperatures may produce hazardous decomposition products.  
SADT (Self-Accelerating Decomposition Temperature) is the lowest temperature at which self-accelerating decomposition may occur with a substance in the packaging as used for transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at or above the SADT. Contact with incompatible substances can cause decomposition at or below the SADT.  
Avoid shock and friction.

**10.5 Incompatible materials** : Keep away from rust, iron and copper. Contact with incompatible materials, such as acids, alkalis, heavy metal compounds and reducing agents, will result in hazardous decomposition. Do not mix with peroxide accelerators.

**10.6 Hazardous decomposition products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

**Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.**

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit 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. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture 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.

Contains tert-butyl hydroperoxide. May produce an allergic reaction.

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Methyl Ethyl Ketone Peroxide	LC50 Inhalation Gas.	Rat	200 ppm	4 hours
	LC50 Inhalation Vapor	Rat	3600 mg/m <sup>3</sup>	4 hours
Diacetone Alcohol	LD50 Oral	Rat	1017 mg/kg	-
	LD50 Dermal	Rabbit	13500 mg/kg	-
	LD50 Oral	Rat	2520 mg/kg	-
1,1-Dimethylethyl Hydroperoxide	LC50 Inhalation Gas.	Rat	500 ppm	4 hours
	LC50 Inhalation Vapor	Rat	1800 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rat	790 mg/kg	-
	LD50 Oral	Rat	560 mg/kg	-

**SECTION 11: Toxicological information**

**Acute toxicity estimates**

Route	ATE value
Oral	2111.68 mg/kg
Dermal	7900 mg/kg
Inhalation (vapors)	18 mg/l

**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
Diacetone Alcohol	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 100 UI	-
1,1-Dimethylethyl Hydroperoxide	Skin - Mild irritant	Rabbit	-	500 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Severe irritant	Rabbit	-	70 UI	-
	Eyes - Severe irritant	Rabbit	-	1 minutes 150 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 mg	-

**Conclusion/Summary** : Not available.

**Sensitization**

No data available

**Conclusion/Summary** : Not available.

**Mutagenicity**

No data available

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**Teratogenicity**

No data available

**Specific target organ toxicity (single exposure)**

Product/ingredient name	Category	Route of exposure	Target organs
Diacetone Alcohol	Category 3	Not applicable.	Respiratory tract irritation

**Specific target organ toxicity (repeated exposure)**

Product/ingredient name	Category	Route of exposure	Target organs
No data available			

**Aspiration hazard**

Product/ingredient name	Result
No data available	

**Other information** : Not available.

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II**

HARDENER FOR POLYESTERS

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## SECTION 12: Ecological information

### 12.1 Toxicity

There are no data available on the mixture itself.  
Do not allow to enter drains or watercourses.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Product/ingredient name	Result	Species	Exposure
Diacetone Alcohol 1,1-Dimethylethyl Hydroperoxide	Acute LC50 420000 µg/l Marine water Acute LC50 77.1 mg/l Fresh water	Fish - Menidia beryllina Fish - Pimephales promelas - Larvae	96 hours 96 hours

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
No data available				

**Conclusion/Summary** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
No data available			

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
No data available			

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

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

**12.6 Other adverse effects** : No known significant effects or critical hazards.

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : Yes.

**European waste catalogue (EWC)** : waste paint and varnish containing organic solvents or other hazardous substances 08 01 11\*

### SECTION 13: Disposal considerations

**Disposal considerations** : Do not allow to enter drains or watercourses.  
Dispose of according to all federal, state and local applicable regulations.  
If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.  
For further information, contact your local waste authority.

#### Packaging




**Methods of disposal** : 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.

**Disposal considerations** : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.

**European waste catalogue (EWC)** : packaging containing residues of or contaminated by hazardous substances 15 01 10\*

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

### SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	UN3105	UN3105	UN3105
14.2 UN proper shipping name	ORGANIC PEROXIDE TYPE D, LIQUID (Methyl Ethyl Ketone Peroxide)	ORGANIC PEROXIDE TYPE D, LIQUID (Methyl Ethyl Ketone Peroxide)	ORGANIC PEROXIDE TYPE D, LIQUID (Methyl Ethyl Ketone Peroxide)
14.3 Transport Hazard Class(es)/ Label(s)	5.2 	5.2 	5.2 
14.4 Packing group	-	II	II
14.5 Environmental hazards	No.	No.	No.
Additional information	<u>Tunnel code</u> D	<u>Emergency schedules</u> F-J, S-R	-

**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 and the IBC Code** : Not applicable.

**Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.**

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II**

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## 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 authorization

###### Annex XIV

None of the components are listed.

**Annex XVII - Restrictions** : Not applicable.  
**on the manufacture,  
placing on the market  
and use of certain  
dangerous substances,  
mixtures and articles**

##### Other EU regulations

**VOC content (2010/75/EU)** : 15 w/w  
161 g/l

##### Seveso Directive

This product may add to the calculation for determining whether a site is within the scope of the Seveso Directive on major accident hazards.

##### National regulations

**15.2 Chemical Safety Assessment** : No Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

##### **Abbreviations and acronyms**

: ATE = Acute Toxicity Estimate  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
EUH statement = CLP-specific Hazard statement  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number  
vPvB = Very Persistent and Very Bioaccumulative  
N/A = Not available

##### **Key literature references and sources for data**

: Regulation (EC) No. 1272/2008 [CLP]  
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
IATA = International Air Transport Association  
IMDG = International Maritime Dangerous Goods  
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830  
Directive 2012/18/EU, and relative amendments & additions  
Directive 2008/98/EC, and relative amendments & additions  
Directive 2009/161/EU, and relative amendments & additions  
CEPE Guidelines

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

**SECTION 16: Other information**

Classification	Justification
Org. Perox. D, H242 Acute Tox. 4, H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 Repr. 2, H361fd (Fertility and Unborn child) Aquatic Chronic 3, H412	Expert judgment Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method

**Full text of abbreviated H statements** :

H226	Flammable liquid and vapor.
H242	Heating may cause a fire.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

**Full text of classifications [CLP/GHS]** :

Acute Tox. 2, H330	ACUTE TOXICITY (inhalation) - Category 2
Acute Tox. 3, H311	ACUTE TOXICITY (dermal) - Category 3
Acute Tox. 4, H302	ACUTE TOXICITY (oral) - Category 4
Acute Tox. 4, H332	ACUTE TOXICITY (inhalation) - Category 4
Aquatic Chronic 2, H411	AQUATIC HAZARD (LONG-TERM) - Category 2
Aquatic Chronic 3, H412	AQUATIC HAZARD (LONG-TERM) - Category 3
Eye Dam. 1, H318	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Flam. Liq. 3, H226	FLAMMABLE LIQUIDS - Category 3
Muta. 2, H341	GERM CELL MUTAGENICITY - Category 2
Org. Perox. D, H242	ORGANIC PEROXIDES - Type D
Org. Perox. F, H242	ORGANIC PEROXIDES - Type F
Repr. 2, H361fd	TOXIC TO REPRODUCTION (Fertility and Unborn child) - Category 2
Skin Corr. 1B, H314	SKIN CORROSION/IRRITATION - Category 1B
Skin Corr. 1C, H314	SKIN CORROSION/IRRITATION - Category 1C
Skin Sens. 1, H317	SKIN SENSITIZATION - Category 1
STOT SE 3, H335	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

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: If there is no previous validation date please contact your supplier for more information.

**Version** : 9.02

**Notice to reader**

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II**

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## **SECTION 16: Other information**

*It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.*