

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**HUNTSMAN**

Enriching lives through innovation

## HARDENER PASTE RED-1

Version 2.0      Revision Date: 19.04.2023      SDS Number: 400001012221      Date of last issue: 11.08.2020  
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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Trade name : HARDENER PASTE RED-1

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

Use of the Substance/Mixture : Adhesives and/or sealants

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

Company : Huntsman Advanced Materials (Europe) BV  
Address : Everslaan 45  
3078 Everberg  
Belgium  
Telephone : +41 61 299 20 41  
Telefax : +41 61 299 20 40

E-mail address of person responsible for the SDS : Global\_Product\_EHS\_AdMat@huntsman.com

#### 1.4 Emergency telephone number

Emergency telephone number : Berlin: 0049 30 19 24 0 & 0049 30 30 68 6 7 11  
Bonn: 0049 228 19 27 0 & 0049 228 28 7 3 32 11  
Erfurt: 0049 361 73 07 30  
Freiburg: 0049 761 16 24 0  
Göttingen: 0049 51 19 24 0 & 0049 551 38 31 80  
Homburg: 0049 6841 19 24 0  
Mainz: 0049 6131 19 24 0 & 0049 6131 23 24 66  
München: 0049 89 19 24 0  
Nürnberg: 0049 911 39 8 2 45 1  
EUROPE: +32 35 75 1234  
France ORFILA: +33(0)145425959  
ASIA: +65 6336-6011  
China: +86 20 39377888  
+86 532 83889090  
India: + 91 22 42 87 5333  
Australia: 1800 786 152  
New Zealand: 0800 767 437  
USA: +1 800-424-9300

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Organic peroxides, Type E      H242: Heating may cause a fire.

Eye irritation, Category 2      H319: Causes serious eye irritation.

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|  |  |
|--|--|
| Skin sensitisation, Category 1                                 | H317: May cause an allergic skin reaction.                               |
| Specific target organ toxicity - repeated exposure, Category 2 | H373: May cause damage to organs through prolonged or repeated exposure. |
| Short-term (acute) aquatic hazard, Category 1                  | H400: Very toxic to aquatic life.  |
| Long-term (chronic) aquatic hazard, Category 1                 | H410: Very toxic to aquatic life with long lasting effects.              |

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements : H242 Heating may cause a fire.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H410 Very 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.  
P234 Keep only in original packaging.  
P260 Do not breathe dust.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

#### **Response:**

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
P391 Collect spillage.

#### **Hazardous components which must be listed on the label:**

dibenzoyl peroxide  
dibutyl maleate

### 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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

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Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

##### Hazardous components

| Chemical name              | CAS-No.<br>EC-No.<br>Index-No.<br>Registration number     | Classification   | Concentration<br>(% w/w) |
|----------------------------|---|--|--------------------------|
| dibenzoyl peroxide         | 94-36-0<br>202-327-6<br>617-008-00-0<br>01-2119511472-50  | Org. Perox. B; H241<br>Eye Irrit. 2; H319<br>Skin Sens. 1; H317<br>Aquatic Acute 1; H400<br>Aquatic Chronic 1;<br>H410<br><br>M-Factor (Acute aquatic toxicity): 10<br>M-Factor (Chronic aquatic toxicity): 10 | >= 50 -<br>< 70          |
| 2,2'-Oxydiethanol          | 111-46-6<br>203-872-2<br>603-140-00-6<br>01-2119457857-21 | Acute Tox. 4; H302   | >= 10 -<br>< 20          |
| dibutyl maleate            | 105-76-0<br>203-328-4<br>-                                | Skin Sens. 1; H317<br>STOT RE 2; H373<br>(Kidney, Liver)<br>Aquatic Acute 1; H400<br><br>M-Factor (Acute aquatic toxicity): 1  | >= 10 -<br>< 20          |
| 2,6-di-tert-butyl-p-cresol | 128-37-0<br>204-881-4<br>01-2119555270-46                 | Aquatic Acute 1; H400<br>Aquatic Chronic 1;<br>H410<br><br>M-Factor (Acute aquatic toxicity): 1<br>M-Factor (Chronic aquatic toxicity): 1  | >= 0,25<br>- < 1         |

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.

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Consult a physician.  
Show this safety data sheet to the doctor in attendance.  
Treat symptomatically.  
Get medical attention if symptoms occur.

- Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing  
If potential for exposure exists refer to Section 8 for specific personal protective equipment.  
Avoid inhalation, ingestion and contact with skin and eyes.  
No action shall be taken involving any personal risk or without suitable training.  
It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- If inhaled : If inhaled, remove to fresh air.  
Get medical attention if symptoms occur.
- In case of skin contact : If on skin, rinse well with water.  
If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Induce vomiting immediately and call a physician.  
Keep respiratory tract clear.  
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

None known.

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

Treatment : Treat symptomatically.  
Treatment with ethyl alcohol is indicated if toxic ingestion is suspected or if there is metabolic acidosis following ingestion of this product. Administer ethyl alcohol sufficient to maintain blood ethyl alcohol levels of above 100 mg/dL.

4-Methylpyrazole (Fomepizole, Antizole) is also a recognized antidote for this product.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Water spray  
Alcohol-resistant foam

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Carbon dioxide (CO<sub>2</sub>)

Dry chemical

Unsuitable extinguishing media : Exercise caution when using a high volume water jet as it may scatter and spread fire

### 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 : Carbon oxides

### 5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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.

## SECTION 6: Accidental release measures

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

Personal precautions : Use personal protective equipment.  
Avoid dust formation.  
Avoid breathing dust.  
Remove all sources of ignition.  
Refer to protective measures listed in sections 7 and 8.

### 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 an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).  
Keep in suitable, closed containers for disposal.

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### 6.4 Reference to other sections

For disposal considerations see section 13., See Section 1 for emergency contact information., For personal protection see section 8.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- Advice on safe handling : Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitisation of susceptible persons. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.  
Avoid formation of respirable particles.  
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.  
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 : Provide appropriate exhaust ventilation at places where dust is formed. 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. 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 : Store in cool place. Keep in a well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Keep in properly labelled containers.
- Advice on common storage : For incompatible materials please refer to Section 10 of this SDS.
- Storage class (TRGS 510) : 5.2
- Further information on storage stability : Stable under normal conditions.
- Recommended storage temperature : 2 - 18 °C

### 7.3 Specific end use(s)

- Specific use(s) : No data available

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### Occupational Exposure Limits

| Components                              | CAS-No.   | Value type (Form of exposure)                 | Control parameters             | Basis       |
|---|---|---|--------------------------------|-------------|
| dibenzoyl peroxide                      | 94-36-0   | AGW (Inhalable fraction)                      | 5 mg/m <sup>3</sup>            | DE TRGS 900 |
| Peak-limit: excursion factor (category) | 1;(I)   |   |                                |             |
| 2,2'-Oxydiethanol                       | 111-46-6  | AGW (Vapour and aerosols)                     | 10 ppm<br>44 mg/m <sup>3</sup> | DE TRGS 900 |
| Peak-limit: excursion factor (category) | 4;(II)  |   |                                |             |
| Further information                     | When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child |   |                                |             |
| 2,6-di-tert-butyl-p-cresol              | 128-37-0  | AGW (Vapour and aerosols, inhalable fraction) | 10 mg/m <sup>3</sup>           | DE TRGS 900 |
| Peak-limit: excursion factor (category) | 4;(II)  |   |                                |             |
| Further information                     | When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child |   |                                |             |

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

| Substance name    | End Use   | Exposure routes | Potential health effects   | Value                   |
|-------------------|-----------|-----------------|----------------------------|-------------------------|
| 2,2'-Oxydiethanol | Workers   | Inhalation      | Long-term systemic effects | 44 mg/m <sup>3</sup>    |
|                   | Workers   | Inhalation      | Long-term local effects    | 60 mg/m <sup>3</sup>    |
|                   | Workers   | Dermal          | Long-term systemic effects | 43 mg/kg bw/day         |
|                   | Consumers | Inhalation      | Long-term systemic effects | 12 mg/m <sup>3</sup>    |
|                   | Consumers | Inhalation      | Long-term local effects    | 12 mg/m <sup>3</sup>    |
|                   | Consumers | Dermal          | Long-term systemic effects | 21 mg/kg bw/day         |
| dibutyl maleate   | Workers   | Dermal          | Acute systemic effects     | 24,2 mg/kg              |
|                   | Workers   | Dermal          | Systemic effects           |                         |
|                   | Workers   | Inhalation      | Acute systemic effects     | 5,87 mg/m <sup>3</sup>  |
|                   | Workers   | Inhalation      | Systemic effects           | 5,87 mg/m <sup>3</sup>  |
|                   | Workers   | Dermal          | Acute local effects        | 4,13 mg/cm <sup>2</sup> |
|                   | Workers   | Dermal          | Local effects              |                         |
|                   | Workers   | Inhalation      | Acute local effects        | 5,87 mg/m <sup>3</sup>  |

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|----------------------------|-----------|------------|----------------------------|-------------------------|
|                            | Workers   | Inhalation | Local effects              | 5,87 mg/m <sup>3</sup>  |
|                            | Workers   | Dermal     | Long-term systemic effects | 0,42 mg/kg              |
|                            | Workers   | Dermal     | Systemic effects           |                         |
|                            | Workers   | Inhalation | Long-term systemic effects | 5,87 mg/m <sup>3</sup>  |
|                            | Workers   | Inhalation | Systemic effects           | 5,87 mg/m <sup>3</sup>  |
|                            | Workers   | Dermal     | Long-term local effects    | 4,12 mg/cm <sup>2</sup> |
|                            | Workers   | Dermal     | Local effects              |                         |
|                            | Workers   | Inhalation | Long-term local effects    | 5,87 mg/m <sup>3</sup>  |
|                            | Workers   | Inhalation | Local effects              | 5,87 mg/m <sup>3</sup>  |
|                            | Consumers | Oral       | Acute systemic effects     | 0,5 mg/kg               |
|                            | Consumers | Oral       | Systemic effects           |                         |
|                            | Consumers | Oral       | Long-term systemic effects | 0,25 mg/kg              |
|                            | Consumers | Oral       | Systemic effects           |                         |
| 2,6-di-tert-butyl-p-cresol | Workers   | Inhalation | Long-term systemic effects | 3,5 mg/m <sup>3</sup>   |
|                            | Workers   | Dermal     | Long-term systemic effects | 0,5 mg/kg bw/day        |
|                            | Consumers | Inhalation | Long-term systemic effects | 0,86 mg/m <sup>3</sup>  |
|                            | Consumers | Dermal     | Long-term systemic effects | 0,25 mg/kg bw/day       |
|                            | Consumers | Oral       | Long-term systemic effects | 0,25 mg/kg bw/day       |
| zinc distearate            | Workers   | Inhalation | Long-term systemic effects | 16,4 mg/m <sup>3</sup>  |
|                            | Workers   | Dermal     | Long-term systemic effects | 4,67 mg/kg bw/day       |
|                            | Consumers | Inhalation | Long-term systemic effects | 2,9 mg/m <sup>3</sup>   |
|                            | Consumers | Dermal     | Long-term systemic effects | 1,67 mg/kg bw/day       |
|                            | Consumers | Oral       | Long-term systemic effects | 1,67 mg/kg bw/day       |

### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

| Substance name    | Environmental Compartment | Value                        |
|-------------------|---------------------------|------------------------------|
| 2,2'-Oxydiethanol | Fresh water               | 10 mg/l                      |
|                   | Marine water              | 1 mg/l                       |
|                   | Freshwater - intermittent | 10 mg/l                      |
|                   | Fresh water sediment      | 20,9 mg/kg dry weight (d.w.) |
|                   | Marine sediment           | 2,09 mg/kg dry weight (d.w.) |
|                   | Sewage treatment plant    | 199,5 mg/l                   |
| dibutyl maleate   | Soil                      | 1,53 mg/kg dry weight (d.w.) |
|                   | Fresh water               | 0,0012 mg/l                  |



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|                            |                            |                                 |
|----------------------------|----------------------------|---------------------------------|
|                            | Marine water               | 0,00012 mg/l                    |
|                            | Freshwater - intermittent  | 0,012 mg/l                      |
|                            | Sewage treatment plant     | 4,886 mg/l                      |
|                            | Fresh water sediment       | 0,06 mg/kg                      |
|                            | Marine sediment            | 0,006 mg/kg                     |
|                            | Soil                       | 0,0115 mg/kg                    |
|                            | Secondary Poisoning        | 6,33 mg/kg                      |
| 2,6-di-tert-butyl-p-cresol | Fresh water                | 0,199 µg/l                      |
|                            | Remarks:Assessment Factors |                                 |
|                            | Marine water               | 0,02 µg/l                       |
|                            | Remarks:Assessment Factors |                                 |
|                            | Sewage treatment plant     | 0,17 mg/l                       |
|                            | Remarks:Assessment Factors |                                 |
|                            | Fresh water sediment       | 0,0996 mg/kg dry weight (d.w.)  |
|                            | Remarks:Equilibrium method |                                 |
|                            | Marine sediment            | 0,00996 mg/kg dry weight (d.w.) |
|                            | Remarks:Equilibrium method |                                 |
|                            | Soil                       | 0,04769 mg/kg dry weight (d.w.) |
|                            | Remarks:Equilibrium method |                                 |
|                            | Oral                       | 8,33 mg/kg                      |
| zinc distearate            | Fresh water                | 3,4 µg/l                        |
|                            | Remarks:Assessment Factors |                                 |
|                            | Freshwater - intermittent  | 4,13 µg/l                       |
|                            | Remarks:Assessment Factors |                                 |
|                            | Marine water               | 0,34 µg/l                       |
|                            | Remarks:Assessment Factors |                                 |
|                            | Fresh water sediment       | 0,526 mg/kg dry weight (d.w.)   |
|                            | Remarks:Equilibrium method |                                 |
|                            | Marine sediment            | 0,0526 mg/kg dry weight (d.w.)  |
|                            | Remarks:Equilibrium method |                                 |
|                            | Soil                       | 0,103 mg/kg                     |
|                            | Remarks:Equilibrium method |                                 |

### 8.2 Exposure controls

#### Personal protective equipment

Eye/face protection : Eye wash bottle with pure water  
Tightly fitting safety goggles  
Wear face-shield and protective suit for abnormal processing problems.

Hand protection  
Remarks : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

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

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Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines  
Equipment should conform to EN 14387

Filter type : Combined particulates and organic vapour type (A-P)

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

Physical state : paste

Colour : red

Odour : slight

Odour Threshold : No data is available on the product itself.

pH : substance/mixture is non-soluble (in water)

Melting point : -10 °C

Boiling point : No data is available on the product itself.

Flash point : No data is available on the product itself.

Flammability (solid, gas) : No data is available on the product itself.

Upper explosion limit / Upper flammability limit : No data is available on the product itself.

Lower explosion limit / Lower flammability limit : No data is available on the product itself.

Vapour pressure : No data is available on the product itself.

Relative vapour density : No data is available on the product itself.

Relative density : 1,139 (20 °C)

Density : 1,139 g/cm<sup>3</sup> (20 °C)

Solubility(ies)  
Water solubility : insoluble (20 °C)

Solubility in other solvents : No data is available on the product itself.

Partition coefficient: n-octanol/water : No data is available on the product itself.

Auto-ignition temperature : No data is available on the product itself.

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Decomposition temperature : 50 °C  
Method: Measured

Viscosity  
Viscosity, dynamic : thixotropic

### 9.2 Other information

Explosive properties : No data is available on the product itself.

Self-Accelerating decomposition temperature (SADT) : 50 °C

Oxidizing properties : No data is available on the product itself.

Burning rate : No data is available on the product itself.

Evaporation rate : No data is available on the product itself.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Reacts violently in contact with acids, amines, driers, polymerisation accelerators and easily oxidized materials. Dust may form explosive mixture in air.

### 10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

### 10.5 Incompatible materials

Materials to avoid : None known.

### 10.6 Hazardous decomposition products

Hazardous decomposition products : carbon dioxide  
carbon monoxide

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### SECTION 11: Toxicological information

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

##### Acute toxicity

###### Product:

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

###### Components:

###### **dibenzoyl peroxide:**

Acute oral toxicity : LD50 (Mouse, male and female): > 2 000 mg/kg  
Method: OECD Test Guideline 401  
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat, male): > 24,3 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Assessment: The substance or mixture has no acute inhalation toxicity

###### **2,2'-Oxydiethanol:**

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : LC50 (Rat): > 4,6 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): 13 300 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

###### **dibutyl maleate:**

Acute oral toxicity : LD50 (Rat, male): 3 730 mg/kg  
Assessment: The component/mixture is low toxic after single ingestion.

Acute inhalation toxicity : LC50 (Rat, male and female): > 5000 mg/m<sup>3</sup>  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rat, male and female): > 2 000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity

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**HUNTSMAN**

Enriching lives through innovation

## HARDENER PASTE RED-1

Version 2.0      Revision Date: 19.04.2023      SDS Number: 400001012221      Date of last issue: 11.08.2020  
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### **2,6-di-tert-butyl-p-cresol:**

Acute oral toxicity : LD50 (Rat, male and female): > 6 000 mg/kg  
Method: OECD Test Guideline 401  
Assessment: The substance or mixture has no acute oral toxicity

Acute dermal toxicity : LD50 (Rat, male and female): > 2 000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity

### **Skin corrosion/irritation**

#### **Components:**

##### **dibenzoyl peroxide:**

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : No skin irritation

##### **2,2'-Oxydiethanol:**

Species : Rabbit  
Assessment : No skin irritation  
Method : Draize Test  
Result : No skin irritation

Species : reconstructed human epidermis (RhE)  
Assessment : No skin irritation  
Method : OECD Test Guideline 439  
Result : No skin irritation

##### **dibutyl maleate:**

Species : Rabbit  
Assessment : No skin irritation  
Method : OECD Test Guideline 404  
Result : No skin irritation

##### **2,6-di-tert-butyl-p-cresol:**

Species : Rabbit  
Assessment : No skin irritation  
Method : OECD Test Guideline 404  
Result : No skin irritation

### **Serious eye damage/eye irritation**

#### **Components:**

##### **dibenzoyl peroxide:**

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : Irritating to eyes.

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### **2,2'-Oxydiethanol:**

Species : Rabbit  
Assessment : No eye irritation  
Result : No eye irritation

### **dibutyl maleate:**

Species : Rabbit  
Assessment : No eye irritation  
Method : OECD Test Guideline 405  
Result : No eye irritation

### **2,6-di-tert-butyl-p-cresol:**

Species : Rabbit  
Assessment : No eye irritation  
Method : OECD Test Guideline 405  
Result : No eye irritation

## **Respiratory or skin sensitisation**

### **Components:**

#### **dibenzoyl peroxide:**

Exposure routes : Skin  
Species : Mouse  
Assessment : May cause sensitisation by skin contact.  
Method : OECD Test Guideline 429  
Result : Causes sensitisation.

#### **2,2'-Oxydiethanol:**

Exposure routes : Skin  
Species : Guinea pig  
Assessment : Did not cause sensitisation on laboratory animals.  
Method : Directive 67/548/EEC, Annex V, B.6.  
Result : Did not cause sensitisation on laboratory animals.

#### **dibutyl maleate:**

Exposure routes : Skin  
Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : May cause sensitisation by skin contact.

#### **2,6-di-tert-butyl-p-cresol:**

Exposure routes : Skin  
Species : Humans  
Result : Does not cause skin sensitisation.

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### Germ cell mutagenicity

#### Components:

#### **dibenzoyl peroxide:**

Genotoxicity in vitro : Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 476  
Result: negative

Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative

Genotoxicity in vivo : Cell type: Somatic  
Application Route: Intraperitoneal injection  
Dose: 0, 50, 100, 200 mg/kg b.w.  
Method: OECD Test Guideline 474  
Result: negative

#### **2,2'-Oxydiethanol:**

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro  
Test system: Chinese hamster ovary cells  
Concentration: <=50 mg/l  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 473  
Result: negative

Test Type: sister chromatid exchange assay  
Test system: Chinese hamster ovary cells  
Concentration: 30 - 50 mg/ml  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 479  
Result: negative

Test Type: reverse mutation assay  
Test system: Salmonella typhimurium and E. coli  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test  
Species: Mouse (male)  
Cell type: Somatic  
Application Route: Intraperitoneal injection  
Dose: 500 - 2000 mg/kg  
Method: OECD Test Guideline 474  
Result: negative

#### **dibutyl maleate:**

Genotoxicity in vitro : Test Type: Ames test  
Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative

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Test Type: In vitro mammalian cell gene mutation test  
Test system: mouse lymphoma cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 476  
Result: negative

Test Type: Chromosome aberration test in vitro  
Test system: Chinese hamster ovary cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 473  
Result: positive

Genotoxicity in vivo : Test Type: Micronucleus test  
Species: Mouse (male and female)  
Application Route: Oral  
Method: OECD Test Guideline 474  
Result: negative  
GLP: yes

### **2,6-di-tert-butyl-p-cresol:**

Genotoxicity in vitro : Test Type: reverse mutation assay  
Metabolic activation: with and without metabolic activation  
Result: negative

Test Type: Chromosome aberration test in vitro  
Metabolic activation: with and without metabolic activation  
Result: negative

Genotoxicity in vivo : Application Route: Intraperitoneal injection  
Dose: 75 mg/kg  
Result: negative

Application Route: Oral  
Exposure time: 9 Months  
Dose: ca 750 mg/kg  
Result: negative

### **Carcinogenicity**

#### **Components:**

##### **dibenzoyl peroxide:**

Species : Mouse, male and female  
Application Route : Dermal  
Exposure time : 104 weeks  
Result : negative

##### **2,2'-Oxydiethanol:**

Species : Rat, male  
Application Route : Oral  
Exposure time : 108 weeks  
Dose : 1.25 and 2.5% DEG  
Frequency of Treatment : 7 days/week



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NOAEL : 1 210 mg/kg body weight

Species : Rat, female  
Application Route : Oral  
Exposure time : 108 weeks  
Dose : 1.25 and 2.5% DEG  
Frequency of Treatment : 7 days/week  
NOAEL : 1 160 mg/kg body weight

### **2,6-di-tert-butyl-p-cresol:**

Species : Rat, male and female  
Application Route : Oral  
Result : negative

### **Reproductive toxicity**

#### **Components:**

#### **dibenzoyl peroxide:**

Effects on fertility : Species: Rat, male and female  
Application Route: Oral  
Dose: 0, 250, 500, 1,000 mg/kg b.w/  
General Toxicity - Parent: NOAEL: 500 mg/kg body weight  
General Toxicity F1: NOAEL: 500 mg/kg body weight  
Method: OECD Test Guideline 422

Effects on foetal development : Species: Rat  
Dose: 100, 300 or 1000 mg/kg/day  
General Toxicity Maternal: NOAEL: 300 mg/kg body weight  
Developmental Toxicity: NOAEL: 300 mg/kg body weight  
Method: OECD Test Guideline 414

#### **2,2'-Oxydiethanol:**

Effects on fertility : Test Type: Two-generation study  
Species: Mouse, male and female  
Application Route: Oral  
Dose: 612/3063/6125 mg/kg bw/day  
Frequency of Treatment: 7 days/week  
General Toxicity - Parent: NOAEL: 3 060 mg/kg body weight

Effects on foetal development : Test Type: Pre-natal  
Species: Rabbit, females  
Application Route: Oral  
Dose: 100/400/1000 milligram per kilogram  
Duration of Single Treatment: 13 d  
General Toxicity Maternal: NOAEL: 1 000 mg/kg body weight  
Method: OECD Test Guideline 414  
Result: No teratogenic effects

Test Type: Pre-natal  
Species: Rat, females  
Application Route: Oral  
Dose: 1, 4 and 8 ml/kg bw/day  
Duration of Single Treatment: 10 d

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General Toxicity Maternal: NOEL: 1 ml/kg  
Developmental Toxicity: NOAEL: 1 ml/kg  
Method: OECD Test Guideline 414

### **dibutyl maleate:**

Effects on fertility : Species: Rat, male and female  
Application Route: Oral  
Method: OECD Test Guideline 422

### **2,6-di-tert-butyl-p-cresol:**

Effects on fertility : Test Type: Two-generation study  
Species: Rat, male and female  
Application Route: Oral  
Dose: 25/100/500 mg/kg bw/day  
General Toxicity - Parent: NOAEL: 100 mg/kg body weight  
General Toxicity F1: NOAEL: 25 mg/kg body weight  
Result: negative

Effects on foetal development : Test Type: Pre-natal  
Species: Mouse, female  
Application Route: Oral  
Duration of Single Treatment: 7 d  
General Toxicity Maternal: NOAEL: 240 mg/kg body weight  
Developmental Toxicity: NOAEL: 800 mg/kg body weight  
Target Organs: spleen, Kidney

### **STOT - single exposure**

No data available

### **STOT - repeated exposure**

#### **Components:**

#### **dibutyl maleate:**

Exposure routes : Ingestion  
Target Organs : Kidney, Liver  
Assessment : May cause damage to organs through prolonged or repeated exposure.

### **Repeated dose toxicity**

#### **Components:**

#### **dibenzoyl peroxide:**

Species : Rat, male and female  
NOAEL : > 100 mg/kg  
Application Route : Skin contact  
Number of exposures : 2 years  
Method : OECD Test Guideline 451

#### **2,2'-Oxydiethanol:**

Species : Rat, male and female  
NOAEL : 300 mg/kg

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Application Route : oral (feed)  
Exposure time : 98 d  
Dose : 300/1500/3000 mg/kg

Species : Rat, male and female  
NOAEL : 128 mg/kg  
Application Route : oral (feed)  
Exposure time : 225 d  
Dose : 64/128/300/1500 mg/kg bw/d  
Target Organs : Kidney

Species : Dog, male  
NOAEL : 2 220 mg/kg  
Application Route : Dermal  
Exposure time : 28 d  
Number of exposures : daily  
Dose : 0.5/2/8 mL/kg bw  
Method : OECD Test Guideline 410  
Target Organs : Kidney  
Remarks : Information given is based on data obtained from similar substances.

Species : Dog, male  
NOAEL : 4 440 mg/kg  
Application Route : Dermal  
Exposure time : 28 d  
Number of exposures : daily  
Dose : 2 and 4 mL/kg bw  
Method : OECD Test Guideline 410

Species : Rat, male and female  
NOAEL : 10 000 mg/kg  
LOAEL : 40 000 mg/kg  
Application Route : oral (feed)  
Exposure time : 28 d  
Dose : 500/2500/10000/40000 mg/kg bw/  
Method : OECD Test Guideline 407

### **dibutyl maleate:**

Species : Rat, male and female  
LOAEL : 30 mg/kg  
Application Route : Ingestion  
Exposure time : 2 160 h  
Number of exposures : 7 d  
Method : Subchronic toxicity  
Target Organs : Kidney

Species : Rat, male and female  
NOAEL : 95 mg/kg  
Application Route : oral (gavage)  
Method : Subacute toxicity  
Target Organs : Kidney, Liver

### **2,6-di-tert-butyl-p-cresol:**

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Species : Pig, male and female  
NOAEL :  $\geq 61$  mg/kg  
Application Route : oral (feed)  
Exposure time : daily  
Method : Chronic toxicity

### Aspiration toxicity

No data available

## 11.2 Information on other hazards

### Endocrine disrupting properties

#### Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

### Experience with human exposure

#### Components:

#### **2,2'-Oxydiethanol:**

Ingestion : Remarks: More hazardous to humans than to laboratory animals  
Ingestion can cause severe toxicity and death in human.  
When ingested early symptoms are nausea, vomiting, abdominal pain, drowsiness and severe metabolic acidosis.  
Without treatment, death may occur within days.  
Victims who survive the initial toxicity period regularly develop kidney failure  
If swallowed, call a poison control centre or doctor immediately.

### Toxicology, Metabolism, Distribution

No data available

### Neurological effects

No data available

### Further information

No data available

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Components:

#### **dibenzoyl peroxide:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0,0602 mg/l  
Exposure time: 96 h  
Test Type: semi-static test  
Test substance: Fresh water

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Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,11 mg/l  
Exposure time: 48 h  
Test Type: static test  
Test substance: Fresh water  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EbC50 (Selenastrum capricornutum (green algae)): 0,0422 mg/l  
Exposure time: 72 h  
Test Type: static test  
Test substance: Fresh water  
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 10

Toxicity to microorganisms : EC50 (activated sludge): 35 mg/l  
Exposure time: 0,5 h  
Test Type: static test  
Test substance: Fresh water  
Method: OECD Test Guideline 209

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC10: 0,001 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Test Type: semi-static test  
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 10

### 2,2'-Oxydiethanol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 75 200 mg/l  
End point: mortality  
Exposure time: 96 h  
Test Type: flow-through test  
Test substance: Fresh water

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10 000 mg/l  
End point: Immobilization  
Exposure time: 24 h  
Test Type: static test  
Test substance: Fresh water  
Method: DIN 38412

Toxicity to algae/aquatic plants : NOEC (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l  
Exposure time: 72 h  
Test substance: Fresh water  
Method: OECD Test Guideline 201

ErC50 (Pseudokirchneriella subcapitata (green algae)): 6 500

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- 13 000 mg/l  
Exposure time: 96 h  
Test substance: Fresh water

EC50 (green algae): 9 362 mg/l  
Exposure time: 96 h  
Test substance: Fresh water  
Method: QSAR  
GLP: no

Toxicity to microorganisms : EC20 (activated sludge): > 1 995 mg/l  
Exposure time: 0,5 h  
Test Type: static test  
Test substance: Fresh water  
Method: ISO 8192

Toxicity to fish (Chronic toxicity) : NOEC: 15 380 mg/l  
Exposure time: 7 d  
Species: Pimephales promelas (fathead minnow)  
Test substance: Fresh water  
Remarks: Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 8 590 mg/l  
Exposure time: 7 d  
Species: Ceriodaphnia (water flea)  
Test Type: static test  
Test substance: Fresh water  
Remarks: Information given is based on data obtained from similar substances.

NOEC: 7 500 - 15 000 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Test substance: Fresh water  
Method: ASTM Method, other  
Remarks: Information given is based on data obtained from similar substances.

### **dibutyl maleate:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 1,2 mg/l  
Exposure time: 96 h  
Test Type: static test  
Test substance: Fresh water  
Method: OECD Test Guideline 203

LC50 (Oncorhynchus mykiss (rainbow trout)): 0,6 mg/l  
Exposure time: 96 h  
Test Type: static test  
Test substance: Fresh water  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 21 mg/l  
Exposure time: 48 h

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Test Type: static test  
Test substance: Fresh water  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 6,2 mg/l  
Exposure time: 72 h  
Test Type: static test  
Test substance: Fresh water  
Method: OECD Test Guideline 201

NOEC (Desmodesmus subspicatus (green algae)): 4,2 mg/l  
Exposure time: 72 h  
Test Type: static test  
Test substance: Fresh water  
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 1

Toxicity to microorganisms : EC50 (activated sludge): 488,6 mg/l  
Exposure time: 3 h  
Test Type: static test  
Test substance: Fresh water  
Method: OECD Test Guideline 209

**2,6-di-tert-butyl-p-cresol:**

Toxicity to fish : LC50 (Fish): 0,199 mg/l  
Exposure time: 96 h  
Test substance: Fresh water  
Method: QSAR

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,48 mg/l  
End point: Immobilization  
Exposure time: 48 h  
Test Type: static test  
Test substance: Fresh water  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 0,24 mg/l  
Exposure time: 72 h  
Test Type: static test  
Test substance: Fresh water  
Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 0,24 mg/l  
Exposure time: 72 h  
Test Type: static test  
Test substance: Fresh water  
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 1

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- Toxicity to microorganisms : ErC50 (activated sludge): 1,7 mg/l  
Exposure time: 24 h  
Test Type: static test
- Toxicity to fish (Chronic toxicity) : NOEC: 0,053 mg/l  
Exposure time: 30 d  
Species: Oryzias latipes (Orange-red killifish)  
Test substance: Fresh water  
Method: OECD Test Guideline 210
- NOEC: >= 23,8 mg/l  
Exposure time: 70 d  
Species: Fish  
Test substance: Fresh water
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC50: 0,096 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Test substance: Fresh water  
Method: OECD Test Guideline 211
- NOEC: 0,069 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Test substance: Fresh water  
Method: OECD Test Guideline 211
- M-Factor (Chronic aquatic toxicity) : 1

### 12.2 Persistence and degradability

#### Components:

##### **dibenzoyl peroxide:**

- Biodegradability : Inoculum: activated sludge  
Concentration: 4 mg/l  
Result: Readily biodegradable.  
Biodegradation: 68 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301D

##### **2,2'-Oxydiethanol:**

- Biodegradability : Test Type: aerobic  
Inoculum: activated sludge  
Result: Readily biodegradable.  
Biodegradation: > 90 %  
Related to: Dissolved organic carbon (DOC)  
Exposure time: 28 d  
Method: OECD Test Guideline 301A  
Test substance: Fresh water
- Biodegradation: > 90 %  
Exposure time: 28 d



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Test Type: aerobic  
Inoculum: activated sludge, non-adapted  
Result: Readily biodegradable.  
Biodegradation: 90 - 100 %  
Related to: Dissolved organic carbon (DOC)  
Exposure time: 28 d  
Method: OECD Test Guideline 301B  
Test substance: Fresh water

### **dibutyl maleate:**

Biodegradability : Inoculum: activated sludge  
Result: Readily biodegradable.  
Biodegradation: 95 %  
Exposure time: 19 d  
Method: Directive 67/548/EEC Annex V, C.4.B.

### **2,6-di-tert-butyl-p-cresol:**

Biodegradability : Result: Not biodegradable

## 12.3 Bioaccumulative potential

### Components:

#### **dibenzoyl peroxide:**

Partition coefficient: n-octanol/water : log Pow: 3,2 (22 °C)  
pH: 7,02  
Method: OECD Test Guideline 117

#### **2,2'-Oxydiethanol:**

Bioaccumulation : Species: Leuciscus idus (Golden orfe)  
Exposure time: 3 d  
Bioconcentration factor (BCF): 100  
Test substance: Fresh water  
Method: OECD Test Guideline 305

Partition coefficient: n-octanol/water : log Pow: -1,98 (25 °C)

#### **dibutyl maleate:**

Bioaccumulation : Bioconcentration factor (BCF): 81,34

Partition coefficient: n-octanol/water : log Pow: 3,39 (25 °C)  
pH: 7  
Method: OECD Test Guideline 117

#### **2,6-di-tert-butyl-p-cresol:**

Bioaccumulation : Species: Cyprinus carpio (Carp)  
Exposure time: 28 d  
Bioconcentration factor (BCF): 330 - 1 800  
Method: flow-through test

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Partition coefficient: n-octanol/water : log Pow: 5,2

### 12.4 Mobility in soil

#### Components:

##### **dibenzoyl peroxide:**

Distribution among environmental compartments : Koc: 6309,57  
Method: OECD Test Guideline 121

##### **2,2'-Oxydiethanol:**

Distribution among environmental compartments : Koc: 1  
Method: QSAR

##### **2,6-di-tert-butyl-p-cresol:**

Distribution among environmental compartments : Koc: 8183

### 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 Endocrine disrupting properties

#### Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

### 12.7 Other adverse effects

#### Product:

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

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Dispose of contents and container in accordance with all local, regional, national and international regulations.  
Do not dispose of waste into sewer.  
Do not contaminate ponds, waterways or ditches with chemical or used container.

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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 or ID number

ADN : UN 3108  
ADR : UN 3108  
RID : UN 3108  
IMDG : UN 3108  
IATA : UN 3108

#### 14.2 UN proper shipping name

ADN : ORGANIC PEROXIDE TYPE E, SOLID  
ADR : ORGANIC PEROXIDE TYPE E, SOLID  
RID : ORGANIC PEROXIDE TYPE E, SOLID  
IMDG : ORGANIC PEROXIDE TYPE E, SOLID  
IATA : Organic peroxide type E, solid

#### 14.3 Transport hazard class(es)

|      | Class | Subsidiary risks |
|------|-------|------------------|
| ADN  | : 5.2 |                  |
| ADR  | : 5.2 |                  |
| RID  | : 5.2 |                  |
| IMDG | : 5.2 |                  |
| IATA | : 5.2 | HEAT             |

#### 14.4 Packing group

**ADN**  
Packing group : Not assigned by regulation  
Classification Code : P1  
Labels : 5.2

**ADR**  
Packing group : Not assigned by regulation  
Classification Code : P1  
Labels : 5.2  
Tunnel restriction code : (D)

**RID**  
Packing group : Not assigned by regulation  
Classification Code : P1  
Hazard Identification Number : 539

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Labels : 5.2

### IMDG

Packing group : Not assigned by regulation  
Labels : 5.2  
EmS Code : F-J, S-R

### IATA (Cargo)

Packing instruction (cargo aircraft) : 570  
Packing group : Not assigned by regulation  
Labels : Organic Peroxides, Keep Away From Heat

### IATA (Passenger)

Packing instruction (passenger aircraft) : 570  
Packing group : Not assigned by regulation  
Labels : Organic Peroxides, Keep Away From Heat

### 14.5 Environmental hazards

#### ADN

Environmentally hazardous : yes

#### ADR

Environmentally hazardous : yes

#### RID

Environmentally hazardous : yes

#### IMDG

Marine pollutant : yes(DIBENZOYL PEROXIDE, DIBUTYL MALEATE)

### 14.6 Special precautions for user

Not applicable

### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered:  
Number on list 75  
If you intend to use this product as tattoo ink, please contact your vendor.

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

P6b SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES

E1 ENVIRONMENTAL HAZARDS

Water hazard class (Germany) : WGK 2 obviously hazardous to water  
Classification according to AwSV, Annex 1 (5.2)

### Other regulations:

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

### The components of this product are reported in the following inventories:

DSL : All components of this product are on the Canadian DSL

AIIC : Not in compliance with the inventory

ENCS : Not in compliance with the inventory

KECI : Not in compliance with the inventory

PICCS : Not in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

TCSI : Not in compliance with the inventory

TSCA : All substances listed as active on the TSCA inventory

### Inventories

AICS (Australia), AIIC (Australia), DSL (Canada), IECSC (China), ENCS (Japan), KECI (Korea), NZIOC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (United States of America (USA))

### 15.2 Chemical safety assessment

Chemical Safety Assessments for all substances in this product are either Complete or Not applicable.

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### SECTION 16: Other information

#### Full text of H-Statements

|      |   |
|------|---|
| H241 | : Heating may cause a fire or explosion.  |
| H302 | : Harmful if swallowed.   |
| H317 | : May cause an allergic skin reaction.  |
| H319 | : Causes serious eye irritation.  |
| H373 | : May cause damage to organs through prolonged or repeated exposure if swallowed. |
| H400 | : Very toxic to aquatic life.   |
| H410 | : Very toxic to aquatic life with long lasting effects.                           |

#### Full text of other abbreviations

|                   |   |
|-------------------|---|
| Acute Tox.        | : Acute toxicity  |
| Aquatic Acute     | : Short-term (acute) aquatic hazard                       |
| Aquatic Chronic   | : Long-term (chronic) aquatic hazard                      |
| Eye Irrit.        | : Eye irritation  |
| Org. Perox.       | : Organic peroxides                                       |
| Skin Sens.        | : Skin sensitisation                                      |
| STOT RE           | : Specific target organ toxicity - repeated exposure      |
| DE TRGS 900       | : Germany. TRGS 900 - Occupational exposure limit values. |
| DE TRGS 900 / AGW | : Time Weighted Average                                   |

#### Further information

##### Classification of the mixture:

|                   |      |
|-------------------|------|
| Org. Perox. E     | H242 |
| Eye Irrit. 2      | H319 |
| Skin Sens. 1      | H317 |
| STOT RE 2         | H373 |
| Aquatic Acute 1   | H400 |
| Aquatic Chronic 1 | H410 |

##### Classification procedure:

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

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IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and

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behaviour should be determined by the user and made known to handlers, processors and end users.

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