

Safety Data Sheet according to 1907/2006/EC, Article 31

Printing date: 18.03.2009

Revision: 20.02.2009

1 Identification of substance

· **Product details**

· **Trade name** NORPOL PEROXIDE 1

· **Application of the substance / the preparation** Polymerization initiator

· **Manufacturer/Supplier:**

Reichhold, Inc.
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· **Informing department:**

Product Safety Europe/Middle East
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· **Emergency information:**

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2 Hazards identification

· **Hazard designation:**



C Corrosive

O Oxidising

· **Information pertaining to particular dangers for man and environment**

R 7 May cause fire.

R 22 Harmful if swallowed.

R 34 Causes burns.

· **Classification system**

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

3 Composition/information on ingredients

· **Chemical characterization**

· **Description:** Mixture consisting of the following components:

· **Dangerous components:**

CAS: 1338-23-4 Methyl ethyl ketone peroxide

30 - 40%

EINECS: 215-661-2 C, Xn, E, O; R 2-7-22-34-44

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| | | |
|-------------------|--|----------|
| CAS: 131-11-3 | dimethyl phthalate | 30 - 40% |
| EINECS: 205-011-6 | | |
| CAS: 6846-50-0 | 2,2,4-Trimethyl-1,3-pentanedyl diisobutyrate | 15 - 25% |
| EINECS: 229-934-9 | | |
| CAS: 7722-84-1 | Hydrogen peroxide | < 2% |
| EINECS: 231-765-0 | C, Xn, O; R 5-8-20/22-35 | |
| CAS: 78-93-3 | methyl ethyl ketone | < 1.5% |
| EINECS: 201-159-0 | Xi, F; R 11-36-66-67 | |
| CAS: 7732-18-5 | water | < 1.5% |

· **Additional information** For the wording of the listed risk phrases refer to section 16.

4 First aid measures**· After inhalation**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness bring patient into stable side position for transport.

· After skin contact

Instantly remove any clothing soiled by the product.
Instantly wash with water and soap and rinse thoroughly.

· After eye contact Rinse opened eye for several minutes under running water. Then consult doctor.**· After swallowing**

Do not induce vomiting; instantly call for medical help.
Rinse out mouth and then drink plenty of water.

5 Fire fighting measures**· Suitable extinguishing agents**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol-resistant foam.

· Protective equipment:

Wear breathing apparatus.
Do not inhale explosion gases or combustion gases.

6 Accidental release measures**· Person-related safety precautions:**

Keep away from ignition sources
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Use breathing protection against the effects of fumes/dust/aerosol.

· Measures for environmental protection:

Do not allow product to reach sewage system or water bodies.
Inform respective authorities in case product reaches water or sewage system.

· Measures for cleaning/collecting:

Ensure adequate ventilation.
Take up with liquid-absorbent material (Vermiculit). Clean up affected area.
Dispose of contaminated material as waste according to item 13.
The waste should not be confined.

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Do not flush with water or aqueous cleansing agents

7 Handling and storage

· Handling

· Information for safe handling:

Do not replace residual quantities in storage containers.

Ensure good ventilation/exhaustion at the workplace.

Do not seal containers gas-tight.

Handle with care. Avoid jolting, friction and impact.

Restrict the quantity stored in the work place.

· Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect from heat.

Prevent impact and friction.

· Storage

· Requirements to be met by storerooms and containers:

Store in cool location.

Store only in the original container.

· Information about storage in one common storage facility:

Store away from flammable substances.

Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.

Store away from foodstuffs.

· Further information about storage conditions:

Caution when reopening containers with broken seal.

Store in a cool place. Heat will increase pressure and may lead to the container exploding.

Do not seal container gastight.

Protect from heat and direct sunlight.

· Maximum storage temperature: 25°C

8 Exposure controls and personal protection

· Additional information about design of technical systems: No further data; see item 7.

· Components with critical values that require monitoring at the workplace:

131-11-3 dimethyl phthalate

WEL (Great Britain) Short-term value: 10 mg/m³

Long-term value: 5 mg/m³

1338-23-4 Methyl ethyl ketone peroxide

WEL (Great Britain) Short-term value: 1.5 mg/m³, 0.2 ppm

7722-84-1 Hydrogen peroxide

WEL (Great Britain) Short-term value: 2.8 mg/m³, 2 ppm

Long-term value: 1.4 mg/m³, 1 ppm

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78-93-3 methyl ethyl ketone

WEL (Great Britain) Short-term value: 899 mg/m³, 300 ppmLong-term value: 600 mg/m³, 200 ppmTLV (European Union) Short-term value: 900 mg/m³, 300 ppmLong-term value: 600 mg/m³, 200 ppm

- **Additional information:** The lists that were valid during the compilation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**
The usual precautionary measures should be adhered to in handling the chemicals.
Keep away from foodstuffs, beverages and food.
Do not eat or drink while working.
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
Use breathing protection in case of insufficient ventilation.
In case of short term exposition use breathing apparatus; in case of intensive or continuous exposition use breathing apparatus with independent air supply.
Filter A/P2.
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/substance/preparation.
Check the permeability prior to each renewed use of the glove.
- **Material of gloves**
Teflon
Butyl rubber, BR
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Tightly sealed safety glasses.
- **Body protection:** Impervious protective clothing

9 Physical and chemical properties:

- **General Information**

| | |
|----------------|----------------|
| Form: | liquid |
| Colour: | colourless |
| Odour: | characteristic |
- **Change in condition**
Melting point/Melting range: not determined
- **Flash point:** > 80°C (Seta flash)
- **Ignition temperature:** n/a
- **SADT:** 60°C
- **Self-inflammability:** Product is not self-inflammable.
- **Danger of explosion:** Risk of explosion if heated under confinement.
- **Critical values for explosion:**

| | |
|---------------|------------|
| Lower: | 1.8 Vol % |
| Upper: | 11.5 Vol % |

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- **Density at 20°C:** 1.10 - 1.13 g/cm³
- **Solubility in / Miscibility with Water:** insoluble
- **pH-value:** not applicable
- **Viscosity:**
dynamic at 20°C: 19 - 22 mPas
- **Additional information**
Active oxygen: 9,1 - 9,2

10 Stability and reactivity

- **Conditions to be avoided:** No decomposition if used and stored according to specifications.
- **Materials to be avoided:** Do not mix with peroxide accelerators.
- **Dangerous reactions:**
Reacts with reducing agents
Reacts with heavy metals
Reacts with strong acids and alkali
- **Dangerous products of composition:**
In case of fire:
carbon monoxide and carbon dioxide

11 Toxicological information

- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**
1338-23-4 Methyl ethyl ketone peroxide
Oral LD50 484 mg/kg (rat)
131-11-3 dimethyl phthalate
Oral LD50 6800 mg/kg (rat)
6846-50-0 2,2,4-Trimethyl-1,3-pentanedyl diisobutyrate
Oral LD50 3200 mg/kg (rat)
78-93-3 methyl ethyl ketone
Oral LD50 3300 mg/kg (rat)
Dermal LD50 5000 mg/kg (rabbit)
Inhalative LC50 (4h) 40 mg/l (mouse)
- **Primary irritant effect:**
· **on the skin:** Caustic effect on skin and mucous membranes.
· **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effect known.

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12 Ecological information:

- **Ecotoxicological effects:**
- **Aquatic toxicity:**
 - 1338-23-4 Methyl ethyl ketone peroxide**
LC50 (96h) 44.2 mg/l (*Poecilia reticulata*)
 - 131-11-3 dimethyl phthalate**
LC50 (96h) 39.8 mg/l (*Selenastrum capricornutum*)
- **General notes:** Water hazard class 2 (Self-assessment): hazardous for water.

13 Disposal considerations

- **Product:**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **European waste catalogue**
 - 16 00 00 WASTES NOT OTHERWISE SPECIFIED IN THE LIST
 - 16 09 00 oxidising substances
 - 16 09 03 peroxides, for example hydrogen peroxide
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**
- **ADR/RID-GGVS/E Class:** 5.2 Organic peroxides.
- **Kemler Number:** -
- **UN-Number:** 3105
- **Label** 5.2
- **Designation of goods:** 3105 ORGANIC PEROXIDE TYPE D, LIQUID (methyl ethyl ketone peroxide)
- **Maritime transport IMDG/GGVSea:**
- **IMDG/GGVSea Class:** 5.2
- **UN Number:** 3105
- **Label** 5.2
- **EmS Number:** F-J,S-R
- **Marine pollutant:** No
- **Proper shipping name:** ORGANIC PEROXIDE TYPE D, LIQUID (methyl ethyl ketone peroxide)
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** 5.2
- **UN/ID Number:** 3105
- **Label** 5.2
- **Packaging group:** -
- **Proper shipping name:** ORGANIC PEROXIDE TYPE D, LIQUID (methyl ethyl ketone peroxide)

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15 Regulatory information

· **Classification according to EC-regulations:**

The product has been classified and labelled in accordance with EC Directives.

· **Code letter and hazard designation of product:**



C Corrosive

O Oxidising

· **Hazard-determining components of labelling:**

Methyl ethyl ketone peroxide

· **Risk phrases:**

- 7 May cause fire.
- 22 Harmful if swallowed.
- 34 Causes burns.

· **Safety phrases:**

- 3/7 Keep container tightly closed in a cool place.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- 50 Do not mix with accelerators, reducing agents, strong acids, alkalis and heavy metal compounds

· **National regulations**

· **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

· **Other regulations, limitations and prohibitive regulations**

· **Other regulations:**

Produktregisteret - Norwegian Product Register
PRN-nummer: 32443

16 Other information:

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant R-phrases**

- 11 Highly flammable.
- 2 Risk of explosion by shock, friction, fire or other sources of ignition.
- 20/22 Harmful by inhalation and if swallowed.
- 22 Harmful if swallowed.
- 34 Causes burns.
- 35 Causes severe burns.
- 36 Irritating to eyes.
- 44 Risk of explosion if heated under confinement.
- 5 Heating may cause an explosion.
- 66 Repeated exposure may cause skin dryness or cracking.
- 67 Vapours may cause drowsiness and dizziness.
- 7 May cause fire.
- 8 Contact with combustible material may cause fire.

· **Department issuing data specification sheet:** Product Safety Europe/Middle East

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