

# SAFETY DATA SHEET

according to the OSHA  
Hazard Communication Standard

Version 8.12  
Revision Date 07/13/2026  
Print Date 07/14/2026

## SECTION 1. IDENTIFICATION

### 1.1 Product identifiers

Product name : Peracetic acid solution

Product Number : 433241

Brand : SIGALD

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

Identified uses : Laboratory chemicals, Synthesis of substances

Restrictions on use : The product is being supplied under the TSCA R&D Exemption (40 CFR Section 720.36). It is the recipient's responsibility to comply with the requirements of the R&D exemption. The product may not be used for a non-exempt commercial purpose under TSCA unless appropriate consent is granted in writing by MilliporeSigma.

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

Company : Sigma-Aldrich Inc.  
3050 SPRUCE ST  
ST. LOUIS MO 63103  
UNITED STATES

Telephone : +1 314 771-5765

Fax : +1 800 325-5052

### 1.4 Emergency telephone number

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-  
527-3887 CHEMTREC (International) 24  
Hours/day; 7 Days/week

## SECTION 2. HAZARDS IDENTIFICATION

**GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)**

**Hazards for the product as supplied**

Flammable liquids : Category 3

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|                                    |                   |
|------------------------------------|-------------------|
| Organic peroxides                  | : Type D          |
| Acute toxicity (Oral)              | : Category 4      |
| Acute toxicity (Inhalation)        | : Category 3      |
| Acute toxicity (Dermal)            | : Category 4      |
| Skin corrosion                     | : Sub-category 1A |
| Serious eye damage                 | : Category 1      |
| Short-term (acute) aquatic hazard  | : Category 1      |
| Long-term (chronic) aquatic hazard | : Category 1      |

### Other hazards

None known.

### GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.  
H242 Heating may cause a fire.  
H302 + H312 Harmful if swallowed or in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H331 Toxic if inhaled.  
H410 Very toxic to aquatic life with long lasting effects.

Supplemental Hazard Statements : Corrosive to the respiratory tract.

Precautionary statements : **Prevention:**  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.  
P234 Keep only in original packaging.  
P240 Ground and bond container and receiving equipment.  
P241 Use explosion-proof electrical/ ventilating/ lighting equipment.  
P242 Use non-sparking tools.

P243 Take action to prevent static discharges.  
P261 Avoid breathing mist or vapours.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P301 + P330 + P331 + P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/ doctor.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.  
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
P391 Collect spillage.

**Storage:**

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P403 + P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.  
P410 Protect from sunlight.  
P420 Store separately.

**Disposal:**

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

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture  
CAS-No. : Not Assigned

**Components**

| Chemical name     | CAS No./Unique ID | Concentration (% w/w) | Trade secret |
|-------------------|-------------------|-----------------------|--------------|
| acetic acid       | 64-19-7*          | $\geq 30 - \leq 60$   | TSC          |
| Peracetic acid    | 79-21-0*          | $\geq 30 - \leq 60$   | TSC          |
| Hydrogen Peroxide | 7722-84-1*        | $\geq 3 - \leq 7$     | TSC          |

\* Indicates that the identifier is a CAS No.

TSC- the actual concentration or concentration range is withheld as a trade secret

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## SECTION 4. FIRST AID MEASURES

|                                                             |                                                                                                                                                                            |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General advice                                              | : First aiders need to protect themselves.<br>Show this safety data sheet to the doctor in attendance.                                                                     |
| If inhaled                                                  | : After inhalation: fresh air. Immediately call in physician.<br>If breathing stops: immediately apply artificial respiration, if necessary also oxygen.                   |
| In case of skin contact                                     | : In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.<br>Call a physician immediately.                                 |
| In case of eye contact                                      | : After eye contact: rinse out with plenty of water.<br>Immediately call in ophthalmologist.<br>Remove contact lenses.                                                     |
| If swallowed                                                | : After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation).<br>Call a physician immediately.<br>Do not attempt to neutralise. |
| Most important symptoms and effects, both acute and delayed | : The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11                                                      |
| Protection of first-aiders                                  | : For personal protection see section 8.                                                                                                                                   |
| Notes to physician                                          | : No data available                                                                                                                                                        |

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## SECTION 5. FIREFIGHTING MEASURES

|                              |                                                                    |
|------------------------------|--------------------------------------------------------------------|
| Suitable extinguishing media | : Water<br>Foam<br>Carbon dioxide (CO <sub>2</sub> )<br>Dry powder |
|------------------------------|--------------------------------------------------------------------|

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|                                                |                                                                                                                                                                 |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unsuitable extinguishing media                 | : For this substance/mixture no limitations of extinguishing agents are given.                                                                                  |
| Specific hazards during fire fighting          | : Combustible.                                                                                                                                                  |
|                                                | Vapours are heavier than air and may spread along floors.                                                                                                       |
|                                                | Forms explosive mixtures with air at elevated temperatures.                                                                                                     |
|                                                | Development of hazardous combustion gases or vapours possible in the event of fire.                                                                             |
| Hazardous combustion products                  | : Carbon oxides                                                                                                                                                 |
| Specific extinguishing methods                 | : No data available                                                                                                                                             |
| Further information                            | : Remove container from danger zone and cool with water.<br>Prevent fire extinguishing water from contaminating surface water or the ground water system.       |
| Special protective equipment for fire-fighters | : Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. |

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

|                                                                     |                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions, protective equipment and emergency procedures | : Advice for non-emergency personnel:<br>Do not breathe vapours, aerosols.<br>Avoid substance contact.<br>Ensure adequate ventilation.<br>Keep away from heat and sources of ignition.<br>Evacuate the danger area, observe emergency procedures, consult an expert.<br>Advice for emergency responders:<br>For personal protection see section 8. |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                       |                                                                                                                                                                                                                                |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environmental precautions                             | : Do not let product enter drains.<br>Risk of explosion.                                                                                                                                                                       |
| Methods and materials for containment and cleaning up | : Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10).<br>Take up with liquid-absorbent material (e.g. Chemizorb® ). Dispose of properly. Clean up affected area. |

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## SECTION 7. HANDLING AND STORAGE

For precautions see section 2.2.

|                                                 |                                                                                                                              |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Advice on protection against fire and explosion | : Keep away from open flames, hot surfaces and sources of ignition.<br>Take precautionary measures against static discharge. |
| Advice on safe handling                         | : Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.                                    |
| Further information on storage conditions       | : Tightly closed.<br>Separately or together with other organic peroxides only and away from sources of ignition and heat.    |
| Storage class                                   | : 5.2, Organic peroxides and self-reacting hazardous materials                                                               |
| Recommended storage temperature                 | : 36 - 46 °F / 2 - 8 °C                                                                                                      |
| Further information on storage stability        | : Light sensitive.                                                                                                           |

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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Ingredients with workplace control parameters

| Components  | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis     |
|-------------|---------|-------------------------------|------------------------------------------------|-----------|
| acetic acid | 64-19-7 | TWA                           | 10 ppm                                         | ACGIH     |
|             |         | STEL                          | 15 ppm                                         | ACGIH     |
|             |         | TWA                           | 10 ppm<br>25 mg/m <sup>3</sup>                 | NIOSH REL |
|             |         | ST                            | 15 ppm<br>37 mg/m <sup>3</sup>                 | NIOSH REL |
|             |         | TWA                           | 10 ppm<br>25 mg/m <sup>3</sup>                 | OSHA Z-1  |

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|                   |           |                                              |                    |           |
|-------------------|-----------|----------------------------------------------|--------------------|-----------|
|                   |           | TWA                                          | 2 ppm              | US WEEL   |
|                   |           | STEL                                         | 5 ppm              | US WEEL   |
| Peracetic acid    | 79-21-0   | STEL<br>(Inhalable<br>fraction<br>and vapor) | 0.4 ppm            | ACGIH     |
| Hydrogen Peroxide | 7722-84-1 | TWA                                          | 1 ppm              | ACGIH     |
|                   |           | TWA                                          | 1 ppm<br>1.4 mg/m3 | NIOSH REL |
|                   |           | TWA                                          | 1 ppm<br>1.4 mg/m3 | OSHA Z-1  |

**Engineering measures** : No data available

### Personal protective equipment

Respiratory protection : required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: : Filter type ABEK

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

### Hand protection

Material : butyl-rubber  
Break through time : 480 min  
Glove thickness : 0.3 mm  
Protective index : Full contact  
Manufacturer : Butoject® (KCL 897 / Aldrich Z677647, Size M)

Material : Nature latex/chloroprene  
Break through time : 30 min  
Glove thickness : 0.6 mm  
Protective index : Splash contact  
Manufacturer : Lapren® (KCL 706 / Aldrich Z677558, Size M)

Manufacturer : data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Remarks                  | : Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.<br>If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario. |
| Eye protection           | : Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).<br>Tightly fitting safety goggles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Skin and body protection | : Flame retardant antistatic protective clothing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Hygiene measures         | : Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

|                             |                                        |
|-----------------------------|----------------------------------------|
| Appearance                  | : liquid                               |
| Colour                      | : No data available                    |
| Odour                       | : No data available                    |
| Odour Threshold             | : No data available                    |
| pH                          | : No data available                    |
| Melting point               | : No data available                    |
| Boiling point/boiling range | : No data available                    |
| Flash point                 | : 133 °F / 56 °C<br>Method: closed cup |
| Evaporation rate            | : No data available                    |
| Flammability (solid, gas)   | : No data available                    |

|                                                     |                                |
|-----------------------------------------------------|--------------------------------|
| Flammability (liquids)                              | : No data available            |
| Burning rate                                        | : No data available            |
| Upper explosion limit /<br>Upper flammability limit | : No data available            |
| Lower explosion limit /<br>Lower flammability limit | : No data available            |
| Vapour pressure                                     | : 26.66 hPa (77 °F / 25 °C)    |
| Relative vapour density                             | : No data available            |
| Relative density                                    | : No data available            |
| Density                                             | : 1.13 g/cm <sup>3</sup>       |
| Water solubility                                    | : No data available            |
| Partition coefficient: n-<br>octanol/water          | : No data available            |
| Autoignition temperature                            | : No data available            |
| Decomposition<br>temperature                        | : No data available            |
| Viscosity, dynamic                                  | : No data available            |
| Viscosity, kinematic                                | : No data available            |
| Flow time                                           | : No data available            |
| Explosive properties                                | : Not classified as explosive. |
| Oxidizing properties                                | : none                         |
| Molecular weight                                    | : 76.05 g/mol                  |
| Particle characteristics<br>Particle size           | : No data available            |

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## SECTION 10. STABILITY AND REACTIVITY

|                    |                                                                                           |
|--------------------|-------------------------------------------------------------------------------------------|
| Reactivity         | : Vapour/air-mixtures are explosive at intense warming.                                   |
| Chemical stability | : The product is chemically stable under standard ambient conditions (room temperature) . |

|                                    |                                                                                                                                                                                             |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Possibility of hazardous reactions | : No data available                                                                                                                                                                         |
| Conditions to avoid                | : Light.<br>Heating.                                                                                                                                                                        |
| Incompatible materials             | : Strong oxidizing agents<br>Strong bases<br>Heavy metal salts<br>Soluble carbonates and phosphates<br>Peroxides<br>permanganates, for example potassium permanganate<br>Amines<br>Alcohols |
| Hazardous decomposition products   | : In the event of fire: see section 5                                                                                                                                                       |

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## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Mixture

#### Acute toxicity

Oral: No data available

Inhalation: No data available

Acute toxicity estimate Inhalation - 4 h - 3 mg/l - vapour(Calculation method)

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory tract

LD50 Dermal - 1,562.5 mg/kg

No data available

#### Skin corrosion/irritation

Remarks: No data available

Remarks: Mixture causes severe burns.

#### Serious eye damage/eye irritation

Remarks: No data available

Remarks: Mixture causes serious eye damage.

Risk of blindness!

#### Respiratory or skin sensitization

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**Reproductive toxicity**

No data available  
No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**11.2 Additional Information**

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Inhalation of high concentrations may cause:, Lung oedema, Aspiration or inhalation may cause chemical pneumonitis.  
Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

Stomach - Irregularities - Based on Human Evidence

**Components**

**acetic acid**

**Acute toxicity**

LD50 Oral - Rat - 3,310 mg/kg  
Remarks: (RTECS)  
LC50 Inhalation - Mouse - 4 h - 2,819 mg/l - vapour  
Remarks: (RTECS)  
Dermal: No data available

**Skin corrosion/irritation**

Skin - Rabbit  
Result: Causes burns. - 4 h  
(OECD Test Guideline 404)  
Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

**Serious eye damage/eye irritation**

Eyes - Rabbit  
Result: Causes burns. - 4 h  
(OECD Test Guideline 405)  
Remarks: (IUCLID)  
Remarks: Causes serious eye damage.

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Test Type: Mutagenicity (mammal cell test): chromosome aberration.

Test system: Chinese hamster ovary cells

Result: negative

Method: Mutagenicity (micronucleus test)

Species: Rat - male and female - Bone marrow

Result: negative

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Peracetic acid****Acute toxicity**

Acute toxicity estimate Oral - 80 mg/kg

(Expert judgement)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Acute toxicity estimate Inhalation - 4 h - 0.2 mg/l - dust/mist

(Expert judgement)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Acute toxicity estimate Dermal - 60 mg/kg

(Expert judgement)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

LD50 Intravenous - Mouse - male - 212 mg/kg

Remarks:

(ECHA)

**Skin corrosion/irritation**

Skin - Rabbit

Result: Causes severe burns. - 4 h

(OECD Test Guideline 404)

**Serious eye damage/eye irritation**

Eyes - Rabbit

Result: Corrosive

(US-EPA)

**Respiratory or skin sensitization**

Maximisation Test - Guinea pig

Result: negative

(Regulation (EC) No. 440/2008, Annex, B.6)

**Germ cell mutagenicity**

Test Type: reverse mutation assay

Test system: *S. typhimurium*

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster fibroblasts

Result: negative

Test Type: Chromosome aberration test in vitro

Test system: Chinese hamster fibroblasts

Result: negative

Method: OECD Test Guideline 474

Species: Mouse - male and female - Red blood cells (erythrocytes)

Result: negative

Method: OECD Test Guideline 486

Species: Rat - male - Liver cells

Result: negative

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

**Aspiration hazard**

No data available

**Hydrogen Peroxide**

**Acute toxicity**

LD50 Oral - Rat - female - 693.7 mg/kg

(OECD Test Guideline 401)

Acute toxicity estimate Inhalation - 4 h - 11.1 mg/l - vapour

(Expert judgement)

LD50 Dermal - Rabbit - male and female - > 2,000 mg/kg

(US-EPA)

No data available

**Skin corrosion/irritation**

Remarks: Causes severe burns.

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Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

**Serious eye damage/eye irritation**

Remarks: Causes serious eye damage.

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

Method: OECD Test Guideline 474

Species: Mouse - male and female - Bone marrow

Result: negative

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

Inhalation - May cause respiratory irritation. - Respiratory Tract

**Specific target organ toxicity - repeated exposure**

**Aspiration hazard**

No data available

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## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

**Product:**

Toxicity to fish : Remarks: No data available

**Components:**

**acetic acid:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 1,000 mg/l  
End point: mortality  
Exposure time: 96 h  
Test Type: semi-static test  
Method: OECD Test Guideline 203  
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1,000 mg/l  
End point: Immobilization  
Exposure time: 48 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic : EC50 (Skeletonema costatum): > 1,000 mg/l

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|                            |                                                                                                                                                                                                                                                                                         |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| plants                     | Exposure time: 72 h<br>Test Type: static test<br>Method: ISO 10253<br>GLP: yes                                                                                                                                                                                                          |
| Toxicity to microorganisms | : EC50 ( <i>Pseudomonas putida</i> ): 2,850 mg/l<br>Exposure time: 16 h<br>Remarks: neutral<br>(maximum permissible toxic concentration)<br>(Lit.)<br><br>EC50 ( <i>Photobacterium phosphoreum</i> ): 11 mg/l<br>Exposure time: 15 min<br>Test Type: microtox test<br>Remarks: (IUCLID) |

**Peracetic acid:**

|                                                               |                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Toxicity to fish                                              | : LC50 ( <i>Oncorhynchus mykiss</i> (rainbow trout)): 0.53 mg/l<br>End point: mortality<br>Exposure time: 96 h<br>Test Type: semi-static test<br>Method: OECD Test Guideline 203<br>GLP: yes                                                                                                                                                                                         |
| Toxicity to daphnia and other aquatic invertebrates           | : EC50 ( <i>Daphnia magna</i> (Water flea)): 0.73 mg/l<br>Exposure time: 48 h<br>Test Type: static test<br>Analytical monitoring: yes<br>Method: OECD Test Guideline 202<br>GLP: yes                                                                                                                                                                                                 |
| Toxicity to algae/aquatic plants                              | : ErC50 ( <i>Pseudokirchneriella subcapitata</i> (green algae)): 0.16 mg/l<br>Exposure time: 72 h<br>Test Type: static test<br>Analytical monitoring: yes<br>Method: US-EPA<br>GLP: yes<br><br>NOEC ( <i>Pseudokirchneriella subcapitata</i> (green algae)): 0.061 mg/l<br>Exposure time: 72 h<br>Test Type: static test<br>Analytical monitoring: yes<br>Method: US-EPA<br>GLP: yes |
| Toxicity to daphnia and other aquatic invertebrates (Chronic) | : NOEC ( <i>Daphnia magna</i> (Water flea)): 0.012 mg/l<br>Exposure time: 21 d<br>Test Type: semi-static test                                                                                                                                                                                                                                                                        |

|                                     |   |                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| toxicity)                           |   | Analytical monitoring: yes<br>Method: OECD Test Guideline 211<br>GLP: yes                                                                                                                                                                                                                                                             |
| Toxicity to microorganisms          | : | EC50 (activated sludge): 5.1 mg/l<br>Exposure time: 3 h<br>Test Type: static test<br>Analytical monitoring: yes<br>Method: OECD Test Guideline 209<br>GLP: yes<br><br>NOEC (activated sludge): 16.7 mg/l<br>Exposure time: 3 h<br>Test Type: static test<br>Analytical monitoring: yes<br>Method: OECD Test Guideline 209<br>GLP: yes |
| Toxicity to soil dwelling organisms | : | (Eisenia fetida (earthworms)): > 1,000 mg/kg<br>Exposure time: 14 d<br>Method: OECD Test Guideline 207<br>GLP: yes                                                                                                                                                                                                                    |
| Plant toxicity                      | : | 320 mg/l<br>Test period: 21 d<br>Species: Avena sativa (oats)<br>Method: OECD Test Guideline 208<br>GLP: yes                                                                                                                                                                                                                          |

### **Ecotoxicology Assessment**

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

### **Hydrogen Peroxide:**

|                                                     |   |                                                                                                                                                                                      |
|-----------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Toxicity to fish                                    | : | LC50 (Pimephales promelas (fathead minnow)): 16.4 mg/l<br>End point: mortality<br>Exposure time: 96 h<br>Test Type: semi-static test<br>Analytical monitoring: yes<br>Method: US-EPA |
| Toxicity to daphnia and other aquatic invertebrates | : | LC50 (Daphnia pulex (Water flea)): 2.4 mg/l<br>End point: mortality<br>Exposure time: 48 h<br>Test Type: semi-static test<br>Analytical monitoring: yes<br>Method: US-EPA            |
| Toxicity to algae/aquatic plants                    | : | ErC50 (Skeletonema costatum (marine diatom)): 1.38 mg/l                                                                                                                              |

Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
GLP: yes  
Remarks: (ECHA)

NOEC (Skeletonema costatum (marine diatom)): 0.63 mg/l

Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
GLP: yes  
Remarks: (ECHA)

ErC50 (Pseudokirchneriella subcapitata (green algae)): 0.5 mg/l

End point: Growth inhibition  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes  
Remarks: (ECHA)

EC50 (Pseudokirchneriella subcapitata (green algae)): 0.25 mg/l

Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes  
Remarks: (ECHA)

NOEC (Pseudokirchneriella subcapitata (green algae)): 0.27 mg/l

End point: Growth inhibition  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes  
Remarks: (ECHA)

EC50 (Pseudokirchneriella subcapitata (green algae)): 1 mg/l

End point: Growth inhibition  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes  
Remarks: (ECHA)

NOEC (*Pseudokirchneriella subcapitata* (green algae)): 0.46 mg/l  
End point: Growth inhibition  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes  
Remarks: (ECHA)

ErC50 (*Pseudokirchneriella subcapitata* (green algae)): 1.3 mg/l  
End point: Growth inhibition  
Exposure time: 72 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 201  
GLP: yes  
Remarks: (ECHA)

M-Factor (Acute aquatic toxicity) : 1

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (*Daphnia magna* (Water flea)): 0.63 mg/l  
End point: reproduction rate  
Exposure time: 21 d  
Test Type: flow-through test  
GLP: yes  
Remarks: (ECHA)

Toxicity to microorganisms : EC50 (activated sludge): 466 mg/l  
Exposure time: 30 min  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 209  
GLP: yes

EC50 (activated sludge): > 1,000 mg/l  
Exposure time: 3 h  
Test Type: static test  
Analytical monitoring: yes  
Method: OECD Test Guideline 209  
GLP: yes

NOEC (activated sludge): 10.5 mg/l  
End point: Growth rate  
Exposure time: 3 h  
Test Type: static test  
Method: OECD Test Guideline 209  
GLP: yes  
Remarks: (ECHA)

EC50 (activated sludge): 213 mg/l  
Exposure time: 30 min  
Test Type: static test  
Method: OECD Test Guideline 209  
GLP: yes  
Remarks: (ECHA)

EC50 (activated sludge): 223 mg/l  
Exposure time: 3 h  
Test Type: static test  
Method: OECD Test Guideline 209  
GLP: yes  
Remarks: (ECHA)

## **Persistence and degradability**

### **Product:**

Biodegradability : Remarks: No data available

### **Components:**

#### **acetic acid:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 99 %  
Exposure time: 30 d  
Method: OECD Test Guideline 301D  
Remarks: (HSDB)

Result: Readily eliminated from water  
Biodegradation: 95 %  
Exposure time: 5 d  
Method: OECD Test Guideline 302B

Biochemical Oxygen Demand (BOD) : 880 mg/g  
Incubation time: 5 d  
Remarks: (Lit.)

BOD/ThOD : 76 %  
Remarks: (IUCLID)

#### **Peracetic acid:**

Biodegradability : aerobic  
Inoculum: activated sludge  
Result: Readily biodegradable.  
Biodegradation: 98 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301E  
GLP: yes

**Hydrogen Peroxide:**

Biodegradability : aerobic  
Inoculum: activated sludge  
Result: Readily biodegradable.  
Biodegradation: > 99 %  
Exposure time: 0.5 h  
GLP: yes  
Remarks: (ECHA)

**Bioaccumulative potential****Product:**

Bioaccumulation : Remarks: No data available

**Components:****acetic acid:**

Partition coefficient: n-octanol/water : log Pow: -0.17 (77 °F / 25 °C)  
pH: 7  
Method: (experimental)  
Remarks: Bioaccumulation is not expected.  
(ECHA)

**Peracetic acid:**

Partition coefficient: n-octanol/water : log Pow: -0.6 (77 °F / 25 °C)  
pH: 7  
Method: OPPTS 830.7550  
GLP: yes

**Hydrogen Peroxide:**

Bioaccumulation : Remarks: No data available

**Mobility in soil****Product:**

Stability in soil : Remarks: No data available

**Other adverse effects****Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances  
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

## **Components:**

### **acetic acid:**

Results of PBT and vPvB assessment : Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

### **Hydrogen Peroxide:**

Results of PBT and vPvB assessment : Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

Additional ecological information : No interference with wastewater treatment plants are to be expected when used properly.

Discharge into the environment must be avoided.

### **Endocrine disrupting properties**

No data available

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

### **Disposal methods**

Waste from residues : Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

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## **SECTION 14. TRANSPORT INFORMATION**

### **International Regulations**

#### **IATA-DGR**

UN/ID No. : UN 3105  
Proper shipping name : Organic peroxide type D, liquid (Peroxyacetic acid, type D)  
(Peroxyacetic acid)  
Class : 5.2  
Subsidiary risk : 8  
Packing group : Not assigned by regulation  
Labels : Division 5.2 - Organic peroxides, Handling Label - Keep Away From Heat, Class 8 - Corrosive substances  
Packing instruction (cargo aircraft) : 570  
Packing instruction (passenger aircraft) : 570

#### **IMDG-Code**

UN number : UN 3105  
Proper shipping name : ORGANIC PEROXIDE TYPE D, LIQUID (PEROXYACETIC

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## ACID, TYPE D)

Class : 5.2  
Subsidiary risk : 8  
Packing group : Not assigned by regulation  
Labels : 5.2 (8)  
EmS Code : F-J, S-R  
Marine pollutant : yes

### Transport in bulk according to IMO instruments

Not applicable for product as supplied.

### National Regulations

#### 49 CFR

UN/ID/NA number : UN 3105  
Proper shipping name : Organic peroxide type D, liquid (Peroxyacetic acid, type D, stabilized)  
(Peroxyacetic acid)  
Class : 5.2  
Subsidiary risk : 8  
Packing group : Not assigned by regulation  
Labels : Division 5.2 - Organic peroxides, Class 8 - Corrosive substances  
ERG Code : 145  
Marine pollutant : no  
Poison Inhalation Hazard : No

### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## SECTION 15. REGULATORY INFORMATION

### CERCLA Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

### SARA 304 Extremely Hazardous Substances Reportable Quantity

| Components     | CAS-No. | Component RQ (lbs) | Calculated product RQ (lbs) |
|----------------|---------|--------------------|-----------------------------|
| Peracetic acid | 79-21-0 | 500                | 1282                        |

### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

| Components        | CAS-No.   | Component TPQ (lbs) |
|-------------------|-----------|---------------------|
| Peracetic acid    | 79-21-0   | 500                 |
| Hydrogen Peroxide | 7722-84-1 | 1000                |

**SARA 311/312 Hazards** : Fire Hazard  
Reactivity Hazard

Acute Health Hazard  
Chronic Health Hazard

**SARA 313**

: The following components are subject to reporting levels established by SARA Title III, Section 313:

Peracetic acid      79-21-0                      >= 30 - < 50 %

**Clean Air Act**

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B). This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

The following chemical(s) are listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F):

Peracetic acid                      79-21-0                      >= 30 - < 50 %

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

acetic acid                      64-19-7                      >= 30 - < 50 %

**Clean Water Act**

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

acetic acid                      64-19-7                      >= 30 - < 50 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

acetic acid                      64-19-7                      >= 30 - < 50 %

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

**US State Regulations**

**Massachusetts Right To Know**

|                   |           |
|-------------------|-----------|
| acetic acid       | 64-19-7   |
| Peracetic acid    | 79-21-0   |
| Hydrogen Peroxide | 7722-84-1 |

**Pennsylvania Right To Know**

|                   |           |
|-------------------|-----------|
| acetic acid       | 64-19-7   |
| Peracetic acid    | 79-21-0   |
| Hydrogen Peroxide | 7722-84-1 |

**Maine Chemicals of High Concern**

Product does not contain any listed chemicals

**Vermont Chemicals of High Concern**

Product does not contain any listed chemicals

**Washington Chemicals of High Concern**

Product does not contain any listed chemicals

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

US TSCA : All substances listed as active on the TSCA inventory

### **TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

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## **SECTION 16. OTHER INFORMATION**

### **Full text of other abbreviations**

|                 |                                                                                             |
|-----------------|---------------------------------------------------------------------------------------------|
| ACGIH           | : USA. ACGIH Threshold Limit Values (TLV)                                                   |
| NIOSH REL       | : USA. NIOSH Recommended Exposure Limits                                                    |
| OSHA Z-1        | : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants          |
| US WEEL         | : USA. Workplace Environmental Exposure Levels (WEEL)                                       |
| ACGIH / TWA     | : 8-hour, time-weighted average                                                             |
| ACGIH / STEL    | : Short-term exposure limit                                                                 |
| NIOSH REL / TWA | : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek |
| NIOSH REL / ST  | : STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday    |
| OSHA Z-1 / TWA  | : 8-hour time weighted average                                                              |
| US WEEL / TWA   | : 8-hr TWA                                                                                  |
| US WEEL / STEL  | : Short-Term TWA                                                                            |

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonised System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation for Economic Co-operation and Development;

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OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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