

SECTION 1. Identification of the substance/mixture and of the company/enterprise

1.1. Product identifier

Product name : PERACID Forte
Product code: refer to sales department

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

Aqueous solution of Oxidising agents and bleaches

Sectors of use:

Industrial Manufacturing[SU3], Manufacture of food products[SU4], Public domain (administration, education, entertainment, services, craftsmen)[SU22]

Product category:

Washing and Cleaning Products (including solvent based products)

Process categories:

Use in batch and other process (syn- thesis) where opportunity for exposure arises[PROC4], Industrial spraying[PROC7], Transfer of substance or mixture (charging and discharging) at nondedicated facilities[PROC8A], Transfer of substance or mixture (charging and discharging) at dedicated facilities[PROC8B], Non industrial spraying[PROC11], Treatment of articles by dipping and pouring [PROC13], Brushing / scrubbing after spray application (trigger) or brushing / scrubbing with tools [PROC10]

Not recommended uses

Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

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1.4. Emergency telephone number

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AEB USA

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AEB AFRICA (PTY) LTD

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SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:

GHS02, GHS05, GHS07, GHS09

Hazard Class and Category Code(s):

Org. Perox. F, Met. Corr. 1, Acute Tox. 4, Skin Corr. 1A, Eye Dam. 1, STOT SE 3, Aquatic Chronic 1

Hazard statement Code(s):

H242 - Heating may cause a fire.

H290 - May be corrosive to metals.

H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled

H314 - Causes severe skin burns and eye damage.

H318 - Causes serious eye damage.

H335 - May cause respiratory irritation.

H410 - Very toxic to aquatic life with long lasting effects. (Acute toxicity M-factor = 1)

The product is unstable and can catch fire in contact with heat sources

The product can be corrosive to metals

Corrosive product: causes severe skin burns and eye damage.

If inhaled, the product causes irritations to the respiratory tract.

If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

The product is dangerous to the environment as it is very toxic to aquatic life with long lasting effects

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):

GHS02, GHS05, GHS07, GHS09 - Danger

Hazard statement Code(s):

H242 - Heating may cause a fire.



H290 - May be corrosive to metals.
H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
H314 - Causes severe skin burns and eye damage.
H335 - May cause respiratory irritation.
H410 - Very toxic to aquatic life with long lasting effects. (Acute toxicity M-factor = 1)

Supplemental Hazard statement Code(s):

EUH071 - Corrosive to the respiratory tract.

Precautionary statements:

Prevention

P220 - Keep away from clothing and other combustible materials.

P260 - Do not breathe vapours/spray.

P280 - Wear protective gloves/clothing and eye/face protection.

Response

P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P370+P378 - In case of fire: Use Spray water to extinguish.

Disposal

P501 - Dispose of contents/container to local/regional/national/international regulations

Contains:

acetic acid, hydrogen peroxide, peracetic acid

Contains (Reg.EC 648/2004):

> 30% oxygen-based bleaching agents, < 5% phosphonates

2.3. Other hazards

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

Do not ingest. Keep out of reach of children.

This product, and the substances contained in it, are not currently identified as having endocrine-disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at the date of writing of the MSDS

SECTION 3. Composition/information on ingredients

3.1 Substances

Irrilevant

3.2 Mixtures

Refer to paragraph 16 for full text of hazard statements

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
Hydrogen peroxide	>= 23 < 25%	Ox. Liq. 1, H271; Acute Tox. 4, H302; Skin Corr. 1A, H314; Eye Dam. 1, H318; Acute Tox. 4, H332; STOT SE 3, H335;	008-003-00-9	7722-84-1	231-765-0	01-2119485 845-22-XXX X

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
		<p>Aquatic Chronic 3, H412 Limits: Aquatic Chronic 3, H412 %C >=63; Skin Corr. 1A, H314 %C >=70; Skin Corr. 1B, H314 50<= %C <70; Skin Irrit. 2, H315 35<= %C <50; Eye Dam. 1, H318 8<= %C <50; Eye Irrit. 2, H319 %C >=8; STOT SE 3, H335 %C >=35; Ox. Liq. 1, H271 %C >=70; Ox. Liq. 2, H272 50<= %C <70;</p> <p>Acute toxicity M-factor = 1 Chronic toxicity M-factor = 1 ATE oral = 431,0 mg/kg ATE inhal > 0,2mg/l/4 h</p>				
Acetic acid	>= 16 < 18%	<p>Flam. Liq. 3, H226; Skin Corr. 1A, H314; Eye Dam. 1, H318 Limits: Skin Corr. 1A, H314 %C >=90; Skin Corr. 1B, H314 25<= %C <90; Skin Irrit. 2, H315 10<= %C <25; Eye Irrit. 2, H319 10<= %C <25;</p>	607-002-00-6	64-19-7	200-580-7	01-2119475 328-30-XXX X
Peracetic acid (B) (D)	>= 14 < 16%	<p>EUH071; Flam. Liq. 3, H226; Org. Perox. D, H242; Met. Corr. 1, H290; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Corr. 1A, H314; Acute Tox. 4, H332; STOT SE 3, H335; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Limits: STOT SE 3, H335 %C >=1; Acute toxicity M-factor = 1 Chronic toxicity M-factor = 10 ATE oral = 80,0 mg/kg ATE dermal = 60,0 mg/kg ATE inhal = 0,2mg/l/4 h</p>	607-094-00-8	79-21-0	201-186-8	01-2119531 330-56-XXX X
Sulphuric acid (B)	< 1%	<p>Met. Corr. 1, H290; Skin Corr. 1A, H314 Limits: Skin Corr. 1A, H314 %C >=15; Skin Irrit. 2, H315 5<= %C</p>	016-020-00-8	7664-93-9	231-639-5	01-2119458 838-20-XXX X

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
		<15; Eye Irrit. 2, H319 5<= %C <15;				

SECTION 4. First aid measures

4.1. Description of first aid measures

Intervene quickly. If necessary alert a doctor. Do not drink or induce vomiting if the patient is unconscious. In the shower: Remove contaminated clothing immediately, including shoes. Risk of ignition. In case of splashes, remove soaked clothing and immediately immerse in water. Symptoms of intoxication may appear even after several hours. It is recommended to remain under medical observation for at least 48 hours after the accident. In case of irregular breathing or respiratory arrest, administer artificial respiration. Take care of your own safety. Get those affected out of the danger area. Remove contaminated or soaked clothing immediately and dispose of it safely. Keep the affected person warm, quiet and covered. Do not leave the affected person unattended. In case of fainting: Lie the person down on their side in a stable position.

In case of eye contact

Intervene immediately. Wash thoroughly with running water, holding the eyelid well away from the eye. Immediately refer the injured person to an ophthalmologist. Do not treat the eye with ointments or oils. Do not use eye drops or ointments of any kind before examination or advice from an ophthalmologist. Continue flushing. Call a doctor immediately. Contact an POISON CENTRE or doctor.

In case of skin contact

Remove contaminated clothing immediately, wash affected parts of the body thoroughly with soap and water. If redness or irritation persists, send the injured person to an emergency room for treatment (burns). Call a doctor immediately

If swallowed

Do not induce vomiting. Rinse mouth with water and immediately send casualty to first aid. Do not induce vomiting. If victim is fully conscious/vigilant. Rinse the mouth. Seek medical attention immediately. Do not perform gastric lavage, danger of foaming reflux. Ingestion of this corrosive material may cause severe ulceration, inflammation and possible perforation of the digestive canal, with bleeding and loss of fluids. Inhalation during induced vomiting may result in severe lung damage. DO NOT induce vomiting. Keep at rest. Immediately contact a POISON CENTRE or doctor.

If inhaled

Move the casualty away from the polluted area; if respiratory failure occurs, give artificial respiration with a self-expanding breathing mask (AMBU). Send immediately to the first aid station. Place under medical supervision. In case of complaints: Admit to hospital. Contact POISON CENTRE or doctor.

If swallowed, do not induce vomiting. Rinse mouth with water and seek medical advice. Do not attempt to induce vomiting, rinse mouth and lips with plenty of water if the person is conscious, then take to hospital.

4.2. Most important symptoms and effects, both acute and delayed

In case of inhalation

Symptoms: Difficulty breathing; Cough; Chemical pneumonitis; Pulmonary oedema

Effects: Corrosive to the respiratory system. Repeated or prolonged exposure: Nosebleed; Risk of chronic bronchitis

In case of skin contact

Symptoms: Reddening; Tissue swelling. Effects: Corrosive; Causes severe burns. On contact with eyes

Symptoms Reddening; Tear; Tissue swelling

Effects: Corrosive; Causes severe burns; May cause irreversible eye damage; May cause blindness.

In case of ingestion

Symptoms: Nausea; Abdominal pain; Hemorrhagic vomiting; Diarrhoea; Choking; Coughing; Severe respiratory failure. Effects: If ingested, causes severe burning of the mouth and throat, as well as perforation of the oesophagus and stomach. Risk of respiratory disease

Notes to physician: Treat symptomatically. If large quantities are ingested or inhaled, contact a poison control centre immediately. This material is seriously corrosive to the eyes and may cause delayed keratitis.

If swallowed, do not induce vomiting. Rinse the mouth with water and immediately send the injured person to a first aid station. Ingestion of this corrosive material may cause severe ulceration, inflammation and possible perforation of the alimentary tract. Inhalation during induced vomiting may cause severe lung damage. Contact a Poison Control Centre for further treatment information. Persons with pre-existing skin, eye or respiratory tract diseases may be at increased risk due to the irritant and corrosive properties of this material. Treat any further effects symptomatically. Contact a poison control centre for further treatment information.

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

Treat any further effects symptomatically. Contact a poison control centre for further treatment information. At first, only the local effect occurs, characterised by a progressive tissue injury that penetrates quickly in depth. Corrosive/irritating and harmful liquids, depending on the intensity of exposure, cause irritation of varying severity in the eye, tearing and detachment of the conjunctival and horny epithelium, opacity of the cornea, oedemas and ulcerations. Danger of blindness! Irritations and superficial lesions up to ulceration and scarring are formed on the skin. After absorption into the body as a result of an accident, the symptoms and clinical picture depend on the kinetics of the substance (amount of the substance absorbed, time of reabsorption and effectiveness of measures taken for prompt elimination (first aid) / elimination-metabolism). A substance-specific action is not known. After inhalation of aerosols and corrosive/irritant mists with high solubility, irritation up to necrosis in the upper respiratory tract may occur, depending on water solubility. In the foreground are local effects: appearance of respiratory tract irritation such as coughing, burning behind the sternum, tearing, burning in the eyes or nose.

SECTION 5. Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media: Nebulized water, alcohol resistant foam, dry chemical products. Intervene with water, better if fractionated, from a safe distance and upwind. Cool containers exposed to fire and surrounding area. Do not remediate, clean or recover until the entire area has been completely cooled. In case of decomposition, evidenced by the formation of fumes and by overheating of the containers, it is essential to cool with water.

Unsuitable Extinguishing Media: Halogens, Organic compounds, Direct water jet

5.2. Special hazards arising from the substance or mixture

Specific risks: May favor the ignition of combustible materials. Product: May cause fire. Contact with the following substances can cause a fire: flammable substances. In the event of fire in the surroundings, danger of decomposition with evolution of oxygen. In case of fire in the surroundings, danger of decomposition with evolution of oxygen. The release of oxygen can favor fires. Danger of overpressure and bursting in case of decomposition in closed containers and pipes. In the event of a fire, dangerous substances may be released. carbon monoxide, carbon dioxide. The main products of combustion are: Hydrocarbons, Carbon Dioxide, Carbon Monoxide, Water. The main decomposition products: Oxygen, see point n. 10 - Stability and Reactivity. Exposure to combustion or decomposition products can

cause damage to health.

Depending on combustion properties, decomposition products may include the following materials:

Carbon oxides Nitrogen oxides (NOx) Sulphur oxides

Phosphorous oxides

5.3. Advice for firefighters

Evacuate personnel to safe areas. Keep unprotected persons away. Keep unauthorised persons away. As in any fire, wear breathing apparatus and appropriate protective clothing including gloves and eye/face protection. Fight fire from a distance (more than 15 m). Cool containers/tanks with water spray. In case of fire, remove containers exposed to fire. Prohibit all sources of sparks and ignition - Do not smoke. Do not allow extinguishing media to penetrate drains or watercourses. Special protective equipment (see also section 8): Use respiratory protection. Wear full fire protection equipment. Use full-face mask and/or self-contained air breathing apparatus (EN 317), flame resistant suit (EN 469), flame resistant gloves (EN 659). Firefighter's boots (HO A29-A30). Protective measures to be taken: Remove containers from the fire area, if this is possible without risk, or cool them, as toxic fumes may arise if the substance is exposed to heat radiation or directly involved. Damaged containers should only be handled by experienced, trained and authorised personnel. Extinguish the fire at a safe distance from the containers, using hoses or automatic fire extinguishing systems with nozzles positioned above the containers. Proceed with the collection of extinguishing water. Cool containers exposed to fire with water spray. Avoid direct contact of product with water. Prevent extinguishing water from contaminating surface water or ground water.

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

Ensure adequate ventilation. Do not breathe dust or vapours. Wear suitable protective clothing, gloves and eye/face protection. For non-emergency personnel: Keep people not involved in emergency operations away from the affected area. Alert internal emergency workers or the fire brigade. If immediate action is required, refer to the indications/instructions for emergency personnel. In the event of an accidental spill or release, notify appropriate authorities in accordance with all applicable regulations. Evacuate the whole area and do not go near the overturned product.

6.1.2 For emergency responders:

For emergency personnel: Suitable personal protective clothing: Self-contained breathing apparatus or full face gas mask with filter (AEBK). Gas proof anti-acid suit. Shut off the ignition source if it can be done without risk. Provide for adequate ventilation of the rooms concerned. If it is possible to operate upwind. Avoid coming into contact with the substance or handling the containers without adequate protection. Use water spray to reduce vapor formation or divert cloud motion. Isolate area until substance is dispersed. Intervene with water, better if fractionated, from a safe distance and upwind. Avoid contact with ignition sources. Avoid direct contact with the product and do not breathe fumes or vapours. Use masks with type A filters. Use the personal protective equipment described in par. 8.

6.2. Environmental precautions

Contain spills with earth or sand.

If the product has entered a watercourse, sewers or has contaminated soil or vegetation, notify the authorities.

Dispose of the waste material in compliance with the regulations

6.3. Methods and material for containment and cleaning up

6.3.1 Containment:

Rapidly recover the product, wear a mask and protective clothing (for specifications refer to section 8.2. SDS)
Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert material or suck it.
Prevent it from entering the sewer system.

6.3.2 Cleaning up:

After wiping up, wash with water the area and materials involved

6.3.3 Other information:

Cleaning methods: Keep away from incompatible substances. Keep away from flammable substances. Contain and collect any spillage with non-combustible absorbent material such as sand, earth, diatomaceous earth and dispose of the product in a container in accordance with current regulations (see section 13). Collect spilled product and non-combustible absorbent (perlite, vermiculite, or sand) in open, clean polyethylene containers and/or polyethylene buckets. Absorb with inert absorbent. Do not absorb with combustible materials. Do not use rags, sawdust, paper or other flammable material (danger of spontaneous combustion). Moisten contents thoroughly. Residues must not be collected in closed containers. Never return spilled product to original containers. For small quantities: Dilute and dilute with plenty of water. see section 12. Collect in suitable containers. Package and label waste as pure substance. Do not remove the marking label on delivery containers until disposal. Dispose of according to local regulations. Reuse is strongly discouraged. Spilled material can be neutralised with sodium carbonate, sodium bicarbonate or sodium hydroxide. Do not absorb using sawdust or other combustible material. After collection, aerate and wash the affected area with water, neutralise with sodium carbonate, sodium bicarbonate or sodium hydroxide before allowing access. Large quantities should be diluted with appropriate agents before being sent for disposal. Ensure adequate ventilation. Dispose of in accordance with safety regulations/waste disposal regulations. Recovery: Do not return recovered product to original containers for re-use. Spilled product must never be returned to the original container for re-use. (Danger of decomposition.) Collect in suitable containers for disposal. Disposal: Follow recommendations in section 13.

6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practices. Use the personal protective equipment described in section 8. Avoid contact with skin, eyes and clothing. Do not inhale vapours, aerosols or atomised substances. Wear protective clothing. Handle in accordance with good industrial hygiene and safety practices. Avoid pollution and the action of heat. Ensure good ventilation of the environment. Change contaminated work clothing immediately. Wash contaminated clothing immediately with water. Spilled product must never be returned to the original container for re-use. (Danger of decomposition.) Provide an emergency shower and eye shower. Establish a ban on open flames, sparks and smoking in places where the product is handled and stored. Do not eat, drink or smoke in working areas. Avoid: direct contact with skin and eyes; inhalation of vapours and fumes. Handle in well-ventilated areas. Avoid any leakage and/or escape. Do not leave containers open. Do not mix/contaminate with other substances that may cause decomposition. Take scrupulous care in the cleaning of containers used for removal and decanting. Never return the removed peracid to the original container. Handle containers with care. Use localised suction systems. Do not re-use empty containers before they have been cleaned. Ensure that there are no residues of incompatible substances inside the container before decanting. In case of insufficient ventilation, wear suitable respiratory equipment. Storage and handling instructions applicable to products: Organic peracids Liquids. Harmful. Corrosive. Dangerous for the environment. Provide showers, eye wash fountains. Emergency eyewash fountains and safety showers should be installed near any place where there is a risk of exposure. Provide water supply points nearby. Avoid any leaks and/or spills. Do not leave containers open. Do not mix/contaminate with other substances that may cause decomposition. Do not re-use empty containers before they have been cleaned. Ensure that there are no residues of incompatible substances inside the tank/container before pouring. In case of insufficient ventilation, wear suitable respiratory equipment. Remove contaminated clothing immediately. Wash hands after handling. The personal protective equipment used must meet the requirements of Regulation (EU) 2016/425 and its amendments (CE marking). To be determined

with reference to the workplace as part of a risk analysis in accordance with Regulation (EU) 2016/4 and its amendments.

Store the product.

In accordance with local/national regulations.

Keep away from food, feed and drink.

In original, closed containers; away from flammable materials and incompatible substances.

Away from heat sources (steam lines, flames, sparks, direct sunlight).

Keep only in original, tightly closed and labelled containers.

Keep away from reducing agents (e.g. amines), acids, alkalis;

Provide suitable ventilation devices for all containers, containers and tanks and check their proper functioning at regular intervals.

Store away from heavy metal compounds (e.g. accelerators, drying agents).

Do not store together with: flammable substances (fire hazard).

Do not store with reducing agents, heavy metal compounds, acids and alkalis, especially in concentrated form.

Avoid solar radiation, heat.

Store away from flames and sparks.

Do not smoke.

Keep away from flammable substances.

Keep away from incompatible substances. see section 10. To maintain product properties for a long time

Store in a dry, well-ventilated place away from heat and sunlight.

Store separate from other chemicals.

Do not store together with: alkalis, reducing agents, metallic salts (danger of decomposition).

Suitable materials: polyethylene, polypropylene, polyvinyl chloride (PVC),

Suitable materials polytetrafluorethylene, glass, ceramics.

Unsuitable materials: Iron, copper, brass, bronze, aluminium, zinc.

Storage temperature: avoid extreme temperature.

Suitable materials that may come into contact with peracids, to be used for the construction of containers, dispensers, etc., are: glass or ceramic, polyethylene (HDPE), polytetrafluoroethylene (PTFE), Polyvinylidene fluoride (PVDF), AISI 304 or 316 stainless steel; the latter must be suitably pickled and passivated before use. Recommended: High Density Polyethylene. Compatible materials: Materials that may come into contact with peracids, to be used for the construction of containers, dispensers, etc., include: glass or ceramic, polyethylene (PE), polypropylene (PP), polyvinyl chloride (PVC), polytetrafluoroethylene (PTFE), AISI 304 or 316 stainless steel; the latter must be suitably pickled and passivated before use. The personal protective equipment used must meet the requirements of Regulation (EU) 2016/425 and its amendments (CE marking). To be determined with reference to the workplace as part of a risk analysis in accordance with Regulation (EU) 2016/4 and its amendments. See also Section 8 for reference to recommended devices. See Section 10.

Incompatible Materials Iron, Copper, Brass, Bronze, Aluminium, Zinc, Strong bases, Oxidising agents, Powdered metals, Strong oxidising agents, Metals, Amines, Strong acids, Reducing agents, Organic materials, Alcohols, Peroxides, Permanganates, e.g. potassium permanganate, Nickel, Brass, Iron and iron salts, Soluble carbonates and phosphates, Hydroxides, Acetone, Sulphur compounds, Heavy metal compounds, Heavy metals, (risk of exothermic decomposition). Incompatible products: Alkalis, Chlorine products, strong reducing agents, combustible substances, flammable materials. See also section 8 for reference to recommended devices. See subsection 10. For conditions to avoid see subsection 10.4. For incompatible materials see subsection 10.5. Additional information Avoid solar radiation, heat. Avoid pollution. Proper transport must be ensured by adhering to the stack height, securing the containers to prevent them from falling and marking them in accordance with the regulations. See also section 15. Ensure availability of water for emergency measures (cooling, flooding, fire-fighting operations) and check for proper functioning at regular intervals. For detailed information on preparing tank and dosing systems, please contact the manufacturer. Advice on storage with other products Do not store together with: alkalis, reducing agents, metallic salts (danger of decomposition). Do not store together with: flammable substances (fire hazard). Ensure availability of water for emergency measures (cooling, flooding, fire-fighting operations) and check for proper functioning at regular intervals. For detailed information on the preparation of tank and dosing systems, please contact the manufacturer.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabelled containers.

Keep containers upright and safe by avoiding the possibility of falls or collisions.

Store in a cool and dry place, away from heat sources and direct exposure to sunlight.

7.3. Specific end use(s)

Industrial Manufacturing:

Handle with extreme caution.

Store in a well ventilated place away from heat sources.

Manufacture of food products:

Handle with care.

Store in a clean, dry, ventilated area away from heat and direct sunlight.

Keep container tightly closed.

Public domain (administration, education, entertainment, services, craftsmen):

Handle with care. Store in a ventilated area and away from heat, keep the container tightly closed.

See the annex exposure scenario.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

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Related to contained substances:

Hydrogen peroxide:

IFA-Gestis

Limit value – Eight hours

(ppm)/(mg/m³)

Australia: 1/1,4

Austria: 1/1,4

Belgium: 1/1,4

Canada – Ontario: 1/x

Canada – Québec: 1/1,4

Finland: 1/1,4

France: 1/1,5

Germany (DFG)(AGS): 0,5/0,71

Ireland: 1/1,5

Norway: 1/1,4

People's Republic of China: x/1,5

Poland: x/0,4

Singapore: 1/1,4

South Korea: 1/x

Spain: 1/1,4

Sweden: 1/1,4

Switzerland: 1/1,4 MAK

USA – NIOSH: 1/1,4

USA – OSHA: 1/1,4

United Kingdom: 1/1,4

Limit value – Short term

(ppm)/(mg/m³)

Australia: x/x

Austria: 2/2,8

Belgium: x/x

Canada – Ontario: x/x

Canada – Québec: x/x

Denmark: 2/2,8

Finland: 3(1)/4,2(1)

France: x/x

Germany (DFG): 0,5/0,71

Ireland: 2(1)/3(1)

People's Republic of China: x/x
Poland: X/0,8(1)
Singapore: x/x
South Korea: x/x
Spain: x/x
Sweden: 2(1)/3(1)
Switzerland: 2(1)/2,8(1) BAC
USA – NIOSH: x/x
USA – OSHA: x/x
United Kingdom: 2/2,8

Czech Republic PEL 1 mg/m³ - NPK-P 2 mg/m³ - Poznámky I- Přepočet 0,707 ppm
Portugal : n.d
Slovakia: NPEL priemerný 1 ppm - NPEL priemerný 1,4 mg/m³ - NPEL krátkodobý 2 ppm - NPEL krátkodobý 2,8 mg/m³ - Poznámka /

Remarks

Finland-Poland-Sweden-Switzerland (1) 15 minutes average value
Germany (DFG) (1) 15 minutes average value
Ireland (1) 15 minutes reference period

ACGIH 2019

Italy: Note A3 - TWA (ppm)/(mg/m³) 1/x- STEL/C (ppm)/(mg/m³) x/x - Effetti Critici: irrt (oclr, rspr at e cute)

Acetic acid:

Limit value/Eight hours
(ppm)/(mg/m³)
Australia: 10/25
Austria: 10/25 (1)
Belgium: 10/25
Canada-Ontario: 10/x
Canada-Québec: 10/25
Czech Republic : x/25
Denmark: 10/25
European Union: 10/25
Finland: 5/13
France: 10/25
Germany (AGS): 10/25
Germany (DFG): 10/25
Hungary: x/25
Ireland: 10/25
Italy: 10/25
Latvia: 10/25
New Zealand: 10/25
People's Republic of China: x/10
Poland: x/15
Portugal: 10/25
Singapore: 10/25
South Korea: 10/x
Spain: 10/25
Sweden: 5/13
Switzerland: 10/25 MAK
The netherlands: x/25
Turkey: 10/25
USA-NIOSH: 10/25
USA-OSHA: 10/25
United Kingdom: 10/25

Limit value/Short term

(ppm)/(mg/m³)

Australia: 15/37

Austria: 20/50 (1)(2)

Belgium: 15/38 (1)

Canada-Ontario: 15/x

Canada-Québec: 15/37

Denmark: 20/50

European Union: 20/50 (1)

Finland: 10(1)/25(1)

France: 20/50 (1)

Germany (AGS): 20(1)/50(1)

Germany (DFG): 20/50 (1)

Hungary: x/25

Ireland: 20(1)/50(1)

Italy: 20/50 (1)

Japan (JSOH): x/x

Latvia: 20/50 (1)

New Zealand: 15/37

People's Republic of China: x/20(1)

Poland: x/50 (1)

Portugal: x/x

Singapore: 15/37

South Africa: 30(1)/x

South Korea: 15/x

Spain: 20/50 (1)

Sweden: 10(1)/25(1)

Switzerland: 20/50 BAC

The Netherlands: x/50 (1)

Turkey: x/x

USA-NIOSH: 15(1)/37(1)

USA-OSHA: x/x

United Kingdom: 20/50 (1)

Remarks

Austria (1) Indicative Occupational Exposure Limit Values, proposal (2) Ceiling limit value (5 minutes)

Belgium (1) 15 minutes average value

Canada - Québec (1) 15 minutes average value

European Union (1) 15 minutes average value **Bold-type: Indicative Occupational Exposure Limit Value (IOELV) ~ (for references see bibliography)**

Finland (1) 15 minutes average value

France *Italic type: Indicative statutory limit values* (1) 15 minutes average value

Germany (AGS) (1) 15 minutes average value

Germany (DFG) (1) 15 minutes average value

Hungary (1) 15 minutes average value

Ireland (1) 15 minutes average value

Italy (1) 15 minutes average value

Latvia (1) 15 minutes average value

Norway (1) 15 minutes average value

People's Republic of China (1) 15 minutes average value

Poland (1) 15 minutes average value

Romania (1) 15 minutes average value

South Africa (1) 15 minutes average value

South Africa Mining (1) 15 minutes average value

South Korea (1) 15 minutes average value

Spain (1) 15 minutes average value VLI

Sweden (1) 15 minutes average value

The Netherlands (1) 15 minutes average value

USA - NIOSH (1) 15 minutes average value
United Kingdom (1) 15 minutes average value

Peracetic acid:
Limit value - Eight hours
(ppm)/(mg/m³)

Belgio: x/x
Canada – Ontario: x/x
Finland: 0,2/0,6
Germany (DFG): 0.1/0.316
Ireland: x/x
Poland: x/0,8

Limit value - Short term
(ppm)/(mg/m³)

Belgio: 0,4 (1)(2)/1,24 (1)(2)
Canada – Ontario: 0,4 (1)(2)/x
Germany (DFG): 0,1 (1)/0.316(1)
Finland: 0,5 (1)/1,5(1)
Ireland: 0,4 (1)(2)/x
Poland: x/1,6(1)

Belgium (1) Inhalable fraction and vapour (2) 15 minutes average value
Canada - Ontario (1) Inhalable fraction and vapour (2) 15 minutes average value
Canada - Québec (1) Inhalable fraction and vapour (2) 15 minutes average value
Finland (1) 15 minutes average value
Germany (DFG) (1) 15 minutes average value
Ireland (1) Inhalable fraction (2) 15 minutes average value
Poland (1) 15 minutes average value
Czech Republic PEL 0,6 mg/m³ - NPK-P 1,2 mg/m³ - Poznámky I- Přepočít 0,0,316 ppm

ACGIH 2019

Italy: Note A4 - TWA (ppm)/(mg/m³) x/x- STEL/C (ppm)/(mg/m³) 0,4 (IFV)/x - Effetti Critici: irrt (rspr at, oclr, cute)

Sulphuric acid:

Limit value – Eight hours (ppm)/(mg/m³)

Australia: x/1
Austria: x/0,1 inhalable aerosol
Belgium: x/0.2 (1)
Canada – Ontario: x/0,2 (1)
Canada – Québec: x/1
Denmark: x/0.05
European Union: x/0,05 (1)(2)
Finland: x/0,05 (1)
France: x/0,05 thoracic fraction
Germany (AGS): x/0,1 inhalable aerosol
Germany (DFG): x/0,1 (1)
Hungary: x/0.05
Ireland: x/0,05
Israel: x/0,3
Italy: n.d./0,05 (1)(2) - ACGIH 2019 Note A2 (M) - TWA (mg/m³) 0,2 (T) - Effetti Critici: fnpl
Japan – JSOH: x/1 (1)
Latvia: x/0,05
New Zealand: x/0,1
Norway: x/0.1 (1)
People's Republic of China: x/1

Poland: x/1 – 0,05
Romania: x/0,05
Singapore: x/1
South Korea: x/0,2
Spain: x/0,05
Sweden: x/0,1 (1)
Switzerland: x/0,1 (1) MAK
The Netherlands: x/0,05 (1)
Turkey: x/0,05
USA – NIOSH: x/1
USA – OSHA: x/1
United Kingdom: x/0,05 (1)(2)

Limit Value – Short term
(ppm)/(mg/m³)

Australia: x/3
Austria: x/0,2 inhalable aerosol
Belgium: x/X
Canada – Ontario: x/x
Canada – Québec: x/3
Denmark: x/0,1 (1)
European Union: x/x
Finland: x/0,1 (1)(2)
France: x/3
Germany (AGS): x/0,1 inhalable aerosol (1)
Germany (DFG): x/0,1 (1)(2)
Hungary: x/x
Ireland: x/x
Israel: x/x
Italy: x/x
Japan – JSOH: x/x
Latvia: x/x
New Zealand: x/x.
People's Republic of China: x/x
Poland: x/2 (1)
Romania: x/x
Singapore: x/3 (1)(2)
South Korea: x/0,6
Spain: x/x
Sweden: x/0,2 (1)(2)
Switzerland: x/0,2 (1)(2) BAC
The Netherlands: x/x
Turkey: x/x
USA – NIOSH: x/x
USA – OSHA: x/x
United Kingdom: x/x
Czech Republic 1 mg/m³ - NPK-P 2 mg/m³ - Poznámky I
Portugal: Oito horas 0,05 mg/m³
Slovakia: NPEL priemerný 0,05 mg/m³

Remarks

Belgium (1) Additional indication "C" means that the agent falls within the scope of Title 2 concerning carcinogenic, mutagenic and reprotoxic agents of Book VI of the Codex on well-being at work.
Canada - Ontario (1) Thoracic aerosol
Canada - Québec (1) 15 minutes average value
Denmark (1) 15 minutes average value
European Union (1) Thoracic fraction (2) When selecting an appropriate exposure monitoring method, account should be taken of potential limitations and interferences that may arise in the presence of other sulphur compounds.
Bold-type: Indicative Occupational Exposure Limit Value (IOELV) ~ (for references see bibliography)

Finland (1) thoracic fraction (2) 15 minutes average value
France Italics type: Indicative statutory limit values
Germany (AGS) (1) 15 minutes average value
Germany (DFG) (1) Inhalable fraction (2) 15 minutes average value (3) Ceiling limit value
Italy (1) thoracic fraction (2) When selecting an appropriate method of exposure monitoring, the limitations and potential interference that may result from the presence of other phosphorus compounds should be taken into account
Japan (JSOH) (1) Occupational exposure limit ceiling: Reference value to the maximal exposure concentration of the substance during a working day
Norway (1) Thoracic fraction
People's Republic of China (1) 15 minutes average value
Poland Thoracic fraction
South Africa (1) Thoracic fraction
South Africa Mining (1) 15 minutes average value
South Korea (1) Thoracic fraction (2) 15 minutes average value
Sweden (1) Inhalable fraction (2) 15 minutes average value
Switzerland (1) Inhalable fraction (2) 15 minutes average value
The Netherlands (1) Thoracic fraction
United Kingdom (1) Thoracic fraction (2) The UK Advisory Committee on Toxic Substances has expressed concern that, for the OELs shown in parentheses, health may not be adequately protected because of doubts that the limit was not soundly-based. These OELs were included in the published UK 2002 list and its 2003 supplement, but are omitted from the published 2005 list.

- Substance: Hydrogen peroxide

DNEL

Local effects Long term Workers inhalation = 1,4 (mg/m³)
Local effects Long term Consumers inhalation = 0,21 (mg/m³)
Local effects Short term Workers inhalation = 3 (mg/m³)
Local effects Short term Consumers inhalation = 1,93 (mg/m³)

PNEC

Sweet water = 0,0126 (mg/l)
sediment Sweet water = 0,47 (mg/kg/sediment)
Sea water = 0,0126 (mg/l)
sediment Sea water = 0,047 (mg/kg/sediment)
intermittent emissions = 0,0138 (mg/l)
STP = 4,66 (mg/l)
ground = 0,0023 (mg/kg ground)

- Substance: Acetic acid

DNEL

Local effects Long term Workers inhalation = 25 (mg/m³)
Local effects Long term Consumers inhalation = 25 (mg/m³)
Local effects Short term Workers inhalation = 25 (mg/m³)
Local effects Short term Consumers inhalation = 25 (mg/m³)

PNEC

Sweet water = 3,058 (mg/l)
sediment Sweet water = 11,36 (mg/kg/sediment)
Sea water = 0,3058 (mg/l)
sediment Sea water = 1,136 (mg/kg/sediment)
intermittent emissions = 30,58 (mg/l)
STP = 85 (mg/l)
ground = 0,47 (mg/kg ground)

- Substance: Peracetic acid

DNEL

Systemic effects Long term Workers inhalation = 0,56 (mg/m³)
Systemic effects Long term Consumers inhalation = 0,28 (mg/m³)
Systemic effects Short term Workers inhalation = 0,56 (mg/m³)

Systemic effects Short term Consumers inhalation = 0,28 (mg/m³)
Local effects Long term Workers inhalation = 0,56 (mg/m³)
Local effects Long term Consumers inhalation = 0,28 (mg/m³)
Local effects Short term Workers inhalation = 0,56 (mg/m³)
Local effects Short term Consumers inhalation = 0,28 (mg/m³)
PNEC
Sweet water = 0,000094 (mg/l)
sediment Sweet water = 0,000056 (mg/kg/sediment)
Sea water = 0,000007 (mg/l)
sediment Sea water = 0,000007 (mg/kg/sediment)
STP = 0,051 (mg/l)
ground = 0,32 (mg/kg ground)

- Substance: Sulphuric acid

DNEL
Local effects Long term Workers inhalation = 0,05 (mg/m³)
Local effects Short term Workers inhalation = 0,1 (mg/m³)
PNEC
Sweet water = 0,003 (mg/l)
sediment Sweet water = 0,002 (mg/kg/sediment)
Sea water = 0,00025 (mg/l)
sediment Sea water = 0,002 (mg/kg/sediment)
STP = 8,8 (mg/l)

8.2. Exposure controls

Appropriate engineering controls:

Industrial Manufacturing:

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

Manufacture of food products:

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

Public domain (administration, education, entertainment, services, craftsmen):

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

Use in closed processes (e.g. closed circuit transfer). Provide the working environment with adequate ventilation to keep the product concentration in the ambient air low. Good local ventilation and local ventilation and a good air exchange system must be ensured. If these measures are not sufficient to maintain If these measures are not sufficient to keep vapour concentrations below the exposure limit, appropriate respiratory protection must be used.
respiratory tract. Emergency eyewash fountains and safety showers should be available in the immediate vicinity of any potential contact

8.2.2 Individual protection measures:

(a) Eye / face protection

Wear tight-fitting safety goggles (EN166) and/or face shield during pouring. The use of a full face mask or other full face protection is strongly recommended when handling open containers or where there is a possibility of splashing. Install emergency eyewear sources in the vicinity of the Use Zone.

(b) Skin protection

(i) Hand protection

Waterproof and chemical-resistant protective gloves (EN 374) with specific training. Check the instructions regarding permeability and penetration time given by the glove supplier. Consider that due to various factors, such as temperature and conditions of use, the permeation time may vary from the indicated in the standard.

Suggested preventive skin protection Gloves

Nitrile rubber Butyl rubber

Breakthrough time: 1- 4 hours

Minimum thickness for butyl rubber 0.7mm, for nitrile rubber 0.4mm or equivalent (consult glove manufacturer for gloves for requirements)

Material: polychloroprene (CR) Penetration time: > 480 min Glove thickness: 0.65 mm Guidelines DIN EN 374

Gloves should be discarded and replaced if there are signs of degradation or chemical penetration.

When handling for a short time or when handling small quantities of polychloroprene (CR) glove material, e.g.

example: Nitrile, polychloroprene and latex, latex, material thickness 0.11 mm. permeation time < 30 min

Method DIN EN 374

When handling for a long time or when handling large quantities butyl rubber glove material, e.g. example: butyl rubber, polychloroprene and latex, latex, material thickness 0.65 mm. permeation time > 480

min Method DIN EN 374. Check condition before use. Avoid contact with eyes and skin.

Wear suitable protective gloves when handling and check their condition before use.

Gloves must be replaced immediately if degradation is noticed. Remarks: After contact wash skin thoroughly.

(ii) Other

Wear chemical-resistant clothing and boots, especially where direct dermal exposure and/or splashes may occur.

Protective overalls, safety apron. Suitable protective footwear. Remove contaminated clothing and wash it before re-use.

Wear protective clothing, acid-resistant. Suitable materials are: PVC, neoprene, nitrile rubber (NBR), rubber.

Rubber or plastic boots.

(c) Respiratory protection

If plant controls do not allow air concentrations below the recommended exposure limit values (where applicable) or at an acceptable level (in countries where exposure limit values have not been established), a suitable respirator must be used. In any case, avoid inhalation of vapours, aerosols and gases. Avoid inhalation of vapours and use only in well-ventilated areas. If the workplace limit value is exceeded, apply respiratory protection. Wear self-contained breathing apparatus Respirator with combined filter A2B2E2K1P2 (Draeger) Respirator with combined filter OV/AG (3M) Respirator with combined filter ABEK2P3 (3M) If necessary: Suction at the workplace. Observe the maximum times for wearing respiratory protection. Use self-contained breathing apparatus or masks with type 'A' filter during emergency interventions. EN 141 Gas/Vapour Filters. A respirator is not required under normal conditions of use. In some situations, such as spray application in industrial environments, the use of respiratory protection (e.g. face mask with NO-type cartridge) is required. Check Exposure scenarios. In case of inadequate ventilation and/or In case of short and minimal exposures use mask, wear an appropriate respirator (respirator with Filter A.): European Cartridges multipurpose type (A2B2E2K1P2), Combination Cartridge/Filter: 60922, 60923 or 60926, 3M multipurpose type (ABEK2P3), Acid Gas (AG) 6002, Organic Vapor/Acid gas (OV/AG) 6003, Multigas (MG/V) 6006. Recommended filter ABEK.

(d) Thermal hazards

No hazard to report

Environmental exposure controls:

Emissions from ventilation equipment or work processes should be checked to ensure they are in compliance with the directives of environmental protection legislation. In some cases, it will be necessary to carry out fume abatement, add filters or make technical modifications to process equipment to reduce the emission to acceptable levels. Preferably use pumping techniques to pour or discharge. Avoid penetration into the subsoil. Do not contaminate ground or surface water. In case of pollution of rivers, lakes or sewers, inform the competent authorities in accordance with local laws. Do not allow product to enter drains. General advice : Provide containment around storage tanks.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Physical state	Clear liquid	
Colour	colorless	
Odour	Pungent, resembling acetic acid	
Odour threshold	not determined as considered not relevant for the characterization of the product	
Melting point/freezing point	- 30/- 50°C (Peracetic Sol. 15%)	
Boiling point or initial boiling point and boiling range	> 100°C (Peracetic Sol. 15%)	
Flammability	not determined as considered not relevant for the characterization of the product	
Lower and upper explosion limit	not explosive	
Flash point	Not applicable. Up to 100°C there is no ignition; beyond the vapors they extinguish the flame	ASTM D92-05/ASTM 1310 - Cleveland open cup
Auto-ignition temperature	> 280°C (Peracetic Sol. 15%)	
Decomposition temperature	> 65°C SADT (Peracetic Sol. 15%)	
pH	<= 2.0 (20°C); 4.8 ± 0.5 (20°, 0.3%)	
Kinematic viscosity	1.50 mm ² / s Dynamic - 1.22 mm ² / s Static	
Solubility	In water	
Water solubility	dsolubility: 1,000 g/l (20 °C) completely miscible solubility in other polar and non-polar solvents	
Partition coefficient n-octanol/water (log value)	log Kow: = -0.52 measured as peracetic acid	
Vapour pressure	> 14 hPa (20°C)	
Density and/or relative density	1.1530 - 1.1540 (g/ml)	
Relative vapour density	not determined as considered not relevant for the characterization of the product	
Particle characteristics	not determined as considered not relevant for the characterization of the product	

9.2. Other information

9.2.1 Information with regard to physical hazard classes

VOC - EU 320,5 g/l
VOC - CH 17,00 % w/w

9.2.2 Other safety characteristics

No data available.

SECTION 10. Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions. No known reactivity hazards under normal conditions of storage and use. The product can react rapidly and violently if mixed with incompatible chemicals or heated. Do not mix directly with metal salts, accelerators, acids and alkalis especially if in concentrated form, reducing products and organic and

flammable substances. Avoid contact with reducing agents and combustible substances, strong acids, reacts violently with basic products with heat release. Keep away from chlorine or sulphite based products.

10.2. Chemical stability

Under storage conditions at normal room temperatures (0°C to +30°C), the product is stable. No dangerous reactions known if handled and stored in accordance with regulations. Stable under recommended storage conditions. Under the recommended conditions of Storage and Handling the Product is stable for at least Twelve months from the date of production. No decomposition is evident if the product is used and stored according to the suggested specifications. Contamination can cause a dangerous increase in pressure - closed containers can explode. However, the product may release oxygen. Do not remove the degassing systems present on the original packaging. Contact with incompatible substances can cause decomposition at or below the self-accelerated decomposition temperature.

10.3. Possibility of hazardous reactions

The product may decompose rapidly if mixed with incompatible chemicals or heated. Do not mix directly with metallic salts, accelerants, acids and alkalis especially if in concentrated form, reducing agents and organic and flammable substances. The product is stable under normal conditions of storage and use, no hazardous reactions occur. Possibility of hazardous reactions: pollutants, decomposition catalysts, metal salts, alkalis, reducing agents may cause a self-accelerating, exothermic decomposition with oxygen release if they come into contact with the product. The release of oxygen may promote fires. During decomposition, there is an increase in temperature and the emission of fumes. The oxygen developed during decomposition can promote the combustion of flammable substances in the event of fire. Decomposition under the influence of heat. It may promote the ignition of combustible materials. If attacked by fire, will sustain combustion. In case of fire and/or explosion, do not breathe fumes. Oxygen developed during decomposition may promote combustion in case of fire. In the event of fire or overheating, there will be an increase in the pressure of the container which may cause it to burst. Contact with flammable substances may cause fire or explosion. Possibility of hazardous reactions: pollutants, decomposition catalysts, metal salts, alkalis, reducing agents may cause a self-accelerating, exothermic decomposition with oxygen development if they come into contact with the product. Danger of overpressure and bursting when decomposing in closed containers and pipes. Release of oxygen may promote fire. See Section 10.1 Reactivity. Reacts with hypochlorite (development of chlorine).

10.4. Conditions to avoid

Conditions to be avoided solar radiation, heat. Keep container in a well-ventilated place. Store in a cool place. To avoid thermal decomposition do not overheat. Store at temperatures not exceeding 30°C. Store away from heat sources and direct sunlight. Product may decompose rapidly if mixed with incompatible chemicals or heated. Keep away from metallic salts, metals, accelerants, acids and alkalis especially in concentrated form, reducing agents and flammable and organic substances. Store in a cool place away from heat sources or direct sunlight. Keep container in a well-ventilated place. Store in a cool place. To avoid thermal decomposition do not overheat. Store at temperatures not exceeding 30°C. Store away from heat sources and direct sunlight. Use only compatible materials listed on page 7.

10.5. Incompatible materials

Reacts with alkalis and metals. Bases, Metals, Organic matter, Aluminium, Mild steel. Keep away from products containing chlorine bleach or sulphites. May give rise to explosive reactions when in contact with Acetic Anhydride. Contact, especially if prolonged, with metals, metal ions, alkalis, reducing agents and organic substances (such as alcohols or terpenes) may initiate the process of self-accelerated decomposition. Can give rise to violent reactions when

in contact with strong oxidising agents, strong reducing agents, acids, bases, amines, transition metal salts, sulphur compounds, rust, ash, dust (risk of exothermic self-accelerated decomposition). organics. Combustible materials. Strong bases. Strong reducing agents. Metals. Salts of metals. Incompatible materials Impurities, decomposition catalysts, metal salts, alkalis, reducing agents, metals, non-ferrous metal, aluminium, zinc. Possible hazardous reaction: decomposition. Flammable materials, Hazardous reaction possible: Self-ignition. Organic solvents, Possible hazardous reaction: Danger of explosion. Incompatible materials: pollutants, catalysts decomposition metals, non-ferrous metal, aluminium, zinc. metal salts, alkalis, reducing agent Possible hazardous reaction: decomposition. Flammable material. Possible hazardous reaction: Self-ignition. organic solvent Possible hazardous reaction: Explosion hazard

10.6. Hazardous decomposition products

Depending on combustion properties, decomposition products may include the following materials:

Carbon oxides

Nitrogen oxides (NO_x)

Sulfur oxides

Oxides of phosphorus

The release of other dangerous decomposition products possible. decomposition products in thermal decomposition: Vapor Oxygen Acetic acid. Decomposition under the effect of heat. If attacked by fire, it will sustain burning. In case of fire and/or explosion do not breathe fumes. The oxygen that develops during decomposition can favor combustion in case of fire. In the event of fire or if heated, there will be an increase in pressure in the container which may cause it to burst. Incomplete combustion generates carbon monoxide, carbon dioxide and other toxic gases. SADT 75°C – 50kg packaging - Isothermal Storage Test (UN test H.3).

SECTION 11. Toxicological information

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

Acute oral toxicity: Oral: Harmful if swallowed. Harmful if swallowed. ATE value (oral route): 430 mg/kg bw. (Reference value Via Oral LD50-ATE 85 mg/kg) Acute inhalation toxicity: ATE value. Harmful if inhaled. Harmful by Inhalation: 1.100 mg/l/4h. (Inhalation Reference Value LD50-ATE 0.204 mg/l/4h (Mist/Dust)). Acute dermal toxicity: ATE value (Dermal): 374 mg/kg bw. Harmful in contact with skin. (Dermal Reference Value LD50-ATE 56.1 mg/kg) (Since two acute dermal toxicity studies covering a concentration range of 4.89 to 11.7% ATE are available, and since no clear interdependence between ATE concentration and LD50 was observed in these studies, the classification derived on the basis of these studies (i.e. acute dermal toxicity category 4, H312 according to the CLP criteria) is also considered applicable to biocidal products with a PAA concentration between 7.00 and 16.00%.) Skin corrosion/irritation: Skin corrosion/irritation, 1A, Causes severe skin burns and serious eye damage. Based on data or product evaluation. On rabbit/ 4 h Corrosive. Method: OECD TG 404. Test substance: Peracetic acid 15%. Serious eye damage/irritation: Serious eye damage/irritation, 1, H318: Causes serious eye damage. Based on data or product evaluation. Eye Irritation On rabbit Corrosive Method: US-EPA-Method. Test substance: peracetic acid 17% Respiratory or skin sensitisation: Respiratory or skin sensitisation: Respiratory sensitisation: Not classifiable based on available information. Based on available data the classification criteria are not met. Skin sensitisation: Does not cause skin sensitisation. Based on data or product evaluation. Guinea pig maximisation test: Does not cause skin sensitisation. Method: OECD TG 406. Test substance: peracetic acid 10 %. Germ cell mutagenicity: No data available for this product. Not classifiable based on available information. Based on available data the classification criteria are not met. Ames test Salmonella Typhimurium negative Metabolic activation: a or without Method: OECD 471 Test substance: peracetic acid 5 %. Chromosome aberration Chinese hamster (V 79 -cellulas) negative Metabolic activation: a or without Method: OECD 473 Test substance: peracetic acid 11 % Unscheduled DNA synthesis-test (UDS) human diploid fibroblasts negative Metabolic activation: without Method: OECD TG 482 Test substance: peracetic acid 42 % literature Test HGPRT Chinese hamster (V 79 -cellulas) negative Metabolic activation: a or without Method: OECD 476 Test substance: peracetic acid 11 % Not classifiable based on available information. Based on available data the classification criteria are not met. Chromosome aberration Rat Oral negative Method: Mutagenicity (micronucleus assay) Test substance: peracetic acid 5 % Unscheduled DNA synthesis-test (UDS) Rat Oral negative Method: OECD TG 486 Test substance: peracetic acid 5 % Carcinogenicity: Not classifiable based on available information. Based on available data, the classification criteria are

not met. Based on data or product evaluation. No known carcinogenic effects. Repeated dose toxicity Based on available data, the classification criteria are not met. Based on data or product evaluation. Oral Rat (male/female) / 13 weeks Duration of experiment: 92 - 93 d NOAEL: 1.17 mg/kg Method: OECD 408 Test substance: peracetic acid 100 % Reproductive toxicity: Based on available data the classification criteria are not met. Based on data or product evaluation. Prenatal Developmental Toxicity Study Oral Rat / 14 days NOAEL (No Observed Adverse Effect Level) parent: 12.5 mg/kg NOAEL F1: 30.4 mg/kg Method: OECD TG 414 Test substance: peracetic acid 100 % Specific Target Organ Toxicity (STOT) - single exposure: Based on data or product evaluation. The substance or mixture is classified as intoxicating to a specific target organ, single exposure, category 3 with irritation of the respiratory tract. Specific target organ toxicity (STOT) - repeated exposure. Based on available data, the classification criteria are not met.

Not classifiable based on available information. The substance or mixture is not classified as intoxicating to a specific target organ for repeated exposure. Aspiration hazard: Not applicable.

(a) acute toxicity: Hydrogen peroxide: Ingestion - LD50 rat (mg/kg/24h bw): 693 - 1.026 mg/kg (H₂O₂ 70%) - risk of mouth, esophagus and stomach burns. For rapid oxygen release: Risk of stomach distension and haemorrhage with the possibility of serious injury, In animals: (as aqueous solution). LD50/Rat: 1,200 mg/kg (35%) - ATE value of 431 mg/kg.

Skin contact - Rabbit LC50 (mg/kg/24h bw): Irritating to skin. On the animal: aqueous solution. Irritating to skin. Superficial necrosis (After semi-occlusive contact, Rabbit, Exposure time: 4 h 35%) Corrosive to the skin. On humans: Effects of skin contact may include: discoloration, erythema, oedema. ATE value of 6500 mg/kg

Inhalation - LC50, 4 h, rat, > 0.17 mg/l, vapor (H₂O₂ 50%) at high vapor concentrations/mists (technically maximum possible concentration 50%) At high vapor concentrations / mists: Risk of pulmonary edema, Delayed effects are possible. St

Acetic acid: LC50 Inhalation acetic acid (lethal conc - rat):> 16000 ppm 4h> 200 ppm 1h - ATE value of 11,400 mg / l / 4h

LD50 (lethal dose - rat): LD50 3310 - 4960 mg / kg - ATE value of 3310 mg / kg bw

LD50 Dermal acetic acid (Lethal Dose Rabbit):> 1900 mg / Kg bw - ATE value of 1060 mg / Kg bw; LD50 (Guinea pig)> 18900 mg / kg bw

Peracetic acid: LC50 Inhalation (lethal dose - rat): 0.204 mg/l - 4h (5% PAA) - EPA OPP 81-3 inhalation ATE = 0.2 mg/L (dusts and mists)

LD50 oral (lethal dose - rat): ATE value of 80 mg/kg bw

LD50 Dermal (lethal dose rabbit): 60 mg/kg bw

Sulphuric acid: Ingestion - LD50 rat (mg/kg/24h bw): 2140

Contact with skin - LC50 rat / rabbit (mg/kg/24h bw): n.a.

Inhalation - LD50 rat (mg/m³/8h): n.a.

(b) skincorrosion/irritation: Corrosive product: causes severe skin burns and eye damage.

Hydrogen peroxide: Corrosive to the skin (after semi-occlusive contact, on rabbit, exposure time: 1 - 4 h) (50%)

Corrosive to the skin (after semi-occlusive contact, on rabbit, exposure time: 3 min) (50 - 70%).

Acetic acid: Corrosive for C> 25% w / w (rabbit)

Peracetic acid: Corrosive, Causes Burns, Irritant (rabbit)

Sulphuric acid: Corrosive

Hydrogen peroxide: Corrosive to the skin (after semi-occlusive contact, on rabbit, exposure time: 1 - 4 h) (50%)

Corrosive to the skin (after semi-occlusive contact, on rabbit, exposure time: 3 min) (50 - 70%).

Acetic acid: Corrosive for C> 25% w / w (rabbit)

Peracetic acid: Corrosive, Causes Burns, Irritant (rabbit)

Sulphuric acid: Irritating

(c) serious eye damage/irritation: Corrosive product: causes severe skin burns and eye damage. - If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

Hydrogen peroxide: Corrosive to the eyes (H₂O₂> 35%)

Acetic acid: Corrosive for C> 25% w / w (guinea pig)

Peracetic acid: Corrosive, Causes Burns, Extremely Irritating (rabbit)

Sulphuric acid: Corrosive

Hydrogen peroxide: Corrosive to the eyes (H₂O₂> 35%)

Acetic acid: Corrosive for C> 25% w / w (guinea pig)

Peracetic acid: Corrosive, Causes Burns, Extremely Irritating (rabbit)

Sulphuric acid: Irritating

(d) respiratory or skin sensitisation: Hydrogen peroxide: Does not cause sensitization on laboratory animals (guinea pig)

Acetic acid: Does not cause sensitization.

Peracetic acid: Does not cause sensitization.

Sulphuric acid: Not sensitizing

(e) germ cell mutagenicity: Hydrogen peroxide: Mutagenicity: According to available experimental data :

Non-genotoxic In vitro Active In vivo In vivo mouse micronucleus test: Inactive (Method: OECD Test Guideline 474)

DNA repair test on rat hepatocytes: Inactive (Method : OECD Test Guideline 486)

Acetic acid: No adverse effect observed

Peracetic acid: No adverse effects were observed

Sulphuric acid: Not mutagenic

(f) carcinogenicity: Hydrogen peroxide: Experimentation on animals has not shown clear evidence of carcinogenic effect. Target Organs: duodenum, carcinogenic effect. Dermal, Prolonged exposure, mouse, Animal testing did not show any carcinogenic effects. Did not show carcinogenic effects in animal experiments. Topical applications do not produce skin tumors. Not recognized as carcinogenic by Research Agencies (IARC, NTP, OSHA, ACGIH).

Acetic acid: No adverse effect observed

Peracetic acid: No adverse effects were observed

Sulphuric acid: Not carcinogenic

(g) eproductivetoxicity: Hydrogen peroxide: Based on the available data, it cannot be assumed that the substance has a reprotoxic potential

Acetic acid: Based on the available data, the substance is not suspected of having reprotoxic potential

Peracetic acid: Oral: Drinking Water F1 - NOAEL Effect level 5 mg / kg bw / day. Oral: Drinking Water P - NOAEL Effect level 5 mg / kg bw / day

Sulphuric acid: Not toxic for reproduction

(h) specific target organ toxicity (STOT) single exposure: If inhaled, the product causes irritations to the respiratory tract.

Hydrogen peroxide: At high vapour/fog concentrations: Irritating to respiratory system. (> 200 ppm). Inhalation, mice, 665 mg/m³ Remarks: RD 50, Irritating to respiratory system, H₂O₂ 50%.

Acetic acid: Negative

Peracetic acid: STOT IF 3, H335. C = 1% Respiratory Tract. The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

Sulphuric acid: Not available

(i) specific target organ toxicity (STOT) repeated exposureHydrogen peroxide: Repeated Exposure: Studies of prolonged exposure in animals have not shown any toxic effects. • In animals : Oral: Irritation of gastric mucosa, NOAEL= 26mg/kg/d (Rat, 3 months) (drinking water) inhalation: Irritation of upper respiratory tract, Irritating to nose, Local effects related to an irritant effect, LOAEL = 0.0029 mg/l (Method: OECD Test Guideline 407, Rat, Repeated)

Acetic acid: Oral, 90 days, mouse, Target Organs: Gastrointestinal Tract, 300ppm, LOAEL (Pure Substance). Oral, 90 days, mouse, 100 ppm, NOAEL (Pure Substance) Inhalation, 28 days, rat, Target Organs: Respiratory System, 10 ppm, LOAEL, vapor (Pure Substance) Inhalation, 28 days, 2 ppm, NOAEL, vapor (pure substance). Inhalation: Irritation to upper respiratory tract, Irritating to nose, Local effects related to an irritant effect, LOAEL= 0.0029 mg/l (Method: OECD Test Guideline 407, Rat, Repeated)

Peracetic acid: Oral: No specific toxic effects noted. NOAEL LOAEL > 200 mg/L drinking water Basis for effect level / Remarks based on PAA (15% in product). NOAEL and LOAEL > 29 mg/kg bw/day (actual dose received) Basis for effect level / Remarks based on PAA. NOAEL and LOAEL > 38 mg/kg bw/day (actual dose received).

Sulphuric acid: Not available

(j) aspiration hazard: Hydrogen peroxide: Not available

Acetic acid: Negative

Peracetic acid: Not applicable

Sulphuric acid: Not available

PERACID Forte:

LD50 (rat) Oral (mg/kg body weight) = 1740

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 1590

=====

Related to contained substances:

Hydrogen peroxide:

LD50 (rat) Oral (mg/kg body weight) = 431

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) > 0,17

Peracetic acid:

LD50 (rat) Oral (mg/kg body weight) = 80

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 60
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 0,204

11.2. Information on other hazards

No data available.

SECTION 12. Ecological information

12.1. Toxicity

=====

Related to contained substances:

Hydrogen peroxide:

Acute toxicity EC50 static test Activated sludge (Bacteria) 466 mg/l - 30 min (HP 100%) Acute toxicity ErC50, 72 h (Skeletonema costatum): 1.6 (1.6 - 5) mg/l. 1,38 mg/l (growth rate)

Marine environment Acute toxicity EC50 Skeletonema costatum (Algae): 2,62 mg/l (HP 100%) Growth rate, 72 h

Acute toxicity EC50 Crustaceans (Daphnia pulex 48h) : 2, 4 mg/l, fresh water, semi-static test (HP100%)

NOEC Repro test. Daphnia magna (Crustacean): 0.63 mg/l - 21 d (HP100%)

Acute toxicity LC50 fish (Pimephales promelas): 16.4 (16.4 - 37.4) mg/l - (HP100%) (US EPA, pH: 6.6 - 7.2)

NOEC, fish (Pimephales promelas): NOEC, 96 h, 5 mg/l (Pure substance)

NOEC Chronic Toxicity Fish: 38.5 mg/l 7 days (Chronic Toxicity Fish)

Acetic acid:

Acute toxicity EC50 bacteria (Anabaena flos-aquae 72h): 1.150 mg/l Pseudomonas putida Acute toxicity EC50 Algae (Sceletonema costatum 72h: > 300 mg/l

Acute toxicity EC50 crustaceans (daphnia magna 48h): > 300 mg/l

Acute toxicity LC50 fish (Oncorhynchus mykiss 96h): > 300 mg/l

Peracetic acid:

Acute toxicity EC50 Algae (Selenastrum capric. 72h): 0.16 mg/l (PAA 5%)

Acute toxicity EC50 crustaceans (Daphnia magna 48h): 0.70 mg/l (PAA 5%)

Acute toxicity LC50 fish (Oncorhynchus mykiss 96h): 0,53 mg/l

Acute toxicity ErC10 Plants Water. (Raphidocelis subcapitata): 2,1 mg/l - OECD TG 201 NOEC (Chronic Toxicity Fish): 0,001 (0,0001 - 0,001) mg/l

Acute toxicity EC50 static test Activated sludge: 38,6 mg/l / 3 h peracetic acid 100 % -OECD 209

Chronic toxicity (Daphnia magna) NOEC: 211 mg/l

C(E)L50 (mg/l) = 0,16

NOEC (mg/l) = 0,001 Chronic toxicity M-factor = 10

Sulphuric acid:

Acute toxicity EC10 bacteria (Pseudomonas putida 30m): >100

Acute toxicity EC50 Algae (Sceletonema costatum 72h): >100

Acute toxicity EC50 Crustaceans (Daphnia magna 24h): 095 mg/l

Acute toxicity LC50 fish (Leuciscus idus 48h): 410 mg /l NOEC

Chronic Toxicity Fish NOEC 0,025 mg/l fish ECHA 65 d

The product is dangerous for the environment as it is very toxic to aquatic organisms following acute exposure.

Use according to good working practices and avoid to disperse the product into the environment.

12.2. Persistence and degradability

=====

Related to contained substances:

Hydrogen peroxide:

Abiotic degradation: air, indirect photooxidation, $t_{1/2}$ 24 h Conditions: sensitizing agent: OH radical. Water, redox, $t_{1/2}$ 120 h Conditions: mineral and enzymatic catalysis, fresh water, brackish water. Soil, redox, $t_{1/2}$ 12 h Conditions: mineral and enzymatic catalysis. Biodegradation: aerobic, $t_{1/2}$, < 2 min Conditions: biological sewage sludge Readily biodegradable. Aerobic, $t_{1/2}$, 0.3 - 5 d Conditions: fresh water Readily biodegradable. Anaerobic Conditions: Soil/sediment not applicable. Aerobic, $t_{1/2}$, 12 h Conditions: Soil Readily biodegradable. Readily Biodegradable (28 Days – OECD TG 301 E)

Acetic acid:

Clay Sand: DT50: 2 days. Water: BOD 96% after 20 days. Air: DT50: 20 days. Readily Biodegradable (30 Days – OECD TG 301 E)

Peracetic acid:

Easily biodegradable (28 days – OECD TG 301 E). 98% Peracetic acid is completely miscible with water. Aqueous solutions of peracetic acid hydrolyze into acetic acid and hydrogen peroxide. The product is biodegradable.

Sulphuric acid:

Unavailable

12.3. Bioaccumulative potential

=====

Related to contained substances:

Hydrogen peroxide:

Not bioaccumulative. Rapid n-otanol/water degradation Log Kow: -1.57

Acetic acid:

Not bioaccumulable - $\log Pow = < 1$ (- 0,17). BCF 3,16.

Peracetic acid:

Not bioaccumulative - $\log Pow = < 1$ (- 0.26) Based on its low octanol-water partition coefficient and its rapid degradation in the environment, this product is not subject to bioaccumulation

Sulphuric acid:

Not available

12.4. Mobility in soil

=====

Related to contained substances:

Hydrogen peroxide:

Soil-Water: important solubility and mobility Soil/sediment, $\log KOC: 0,2$ evaporation and adsorption not significant. Air, Volatility, Henry's constant, = 0.75 kPa.m³/mol Conditions: 20 °C not significant. Surface tension: 75.7 mN/m % 20 °C /50 %.

Acetic acid:

Soil log Koc: 0.0618

Peracetic acid:

Soil: Decomposes - half-life DT50 03 Min

The peracetic acid released into the environment is distributed almost exclusively (> 99 %) to the aquatic compartment. Only a minor part (< 1 %) will remain in the atmosphere, where it is expected to have rapid decay with a half-life of 22 minutes.

Sulphuric acid:

Unavailable

12.5. Results of PBT and vPvB assessment

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No adverse effects

Regulation (EC) No 2006/907 - 2004/648

The (l) surfactant (s) content (s) in this preparation complies (comply) with (i) the biodegradability criteria as laid down in Regulation CE/648/2004 on detergents. All data are held at the disposal of the competent authorities of Member States and will be provided, at their direct request or at the request of a detergent manufacturer, to those authorities.

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Disposal methods:

Due to the high risk of contamination, recycling/recovery is not recommended. Waste generation should be avoided or minimised wherever possible. Waste disposal in accordance with regulations (preferably controlled incineration). Concentrated content or contaminated packaging must be disposed of via an authorised company or in accordance with local regulations. Dispose of this material and its containers at a collection point for hazardous waste or through an authorised disposer. Disposal must be carried out in accordance with the law. Release of waste into sewers is strongly discouraged. Cleaned packaging material is suitable for energy recovery or recycling according to local legislation. Waste must be handled and disposed of according to local and national regulations. Do not discharge into drains and/or the environment; dispose of waste at an authorised waste collection point. See: Disposal according to local regulations. Package and mark waste as pure substance. Do not remove the marking label on delivery containers until disposal. Do not put product residues back into the container (danger of decomposition). Return non-recyclable solutions and surplus to an authorised waste disposal company. A waste code number according to the European Waste Index cannot be decided for this product, as only the type of use by the consumer allows an assignment. The waste code number must be decided in accordance with the European Waste Code (EU Waste Code Decision 2000/532/EC) in agreement with the waste collector / producer / authorities. Operate in accordance with applicable local and national regulations.

Contaminated Containers

Due to the high risk of contamination, recycling/recovery is not recommended. Dispose of waste in accordance with regulations (preferably controlled incineration). Care must be taken when handling emptied containers that have not been cleaned or rinsed. For handling and measures in the event of accidental spillage of waste, the instructions given in sections 6 and 7 generally apply. Specific precautions and actions must be considered in relation to the composition of the waste. Operate according to current local and national regulations. When introducing acidic or alkaline products into sewage systems, care must be taken that the wastewater introduced does not have a pH value outside the 6-10 range, as problems can arise in sewers and biological treatment plants as a result of a shift in pH value. Local wastewater discharge guidelines take precedence. Easy and fast to degrade. In tests for easy degradability, all substances contained in the product achieved values > 60% BOD/COD, i.e. formation of CO₂, or > 70% DOC decrease. This is within the limit values for 'easily degradable/readily degradable' (e.g. OECD 301 methods).

SECTION 14. Transport information

14.1. UN number or ID number

ADR/RID/IMDG/ICAO-IATA: 3109



If subject to the following characteristics is ADR exempt:

Combination packagings: per inner packaging 125 ml per package 30 Kg

Inner packaging placed in skrink-wrapped or stretch-wrapped trays: per inner packaging 125 ml per package 20 Kg

14.2. UN proper shipping name

ADR/RID/IMDG: PEROSSIDO ORGANICO DI TIPO F, LIQUIDO (ACIDO PEROSSIACETICO, TIPO F, STABILIZZATO)

ADR/RID/IMDG: ORGANIC PEROXIDE TYPE F, LIQUID (Peroxyacetic Acid, type F, stabilized)

ICAO-IATA: ORGANIC PEROXIDE TYPE F, LIQUID (Peroxyacetic Acid, type F, stabilized)

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class : 5.2

ADR/RID/IMDG/ICAO-IATA: Label : 5.2 + 8+ ENVIRONMENTALLY HAZARDOUS

ADR: Tunnel restriction code : D

ADR/RID/IMDG/ICAO-IATA: Limited quantities : 125 ml

IMDG - EmS : F-J, S-R

14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: --

14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is environmentally hazardous

IMDG: Marine polluting agent : Yes

14.6. Special precautions for user

The transport must be carried out by authorized vehicles for the transport of dangerous goods in accordance with the requirements of the applicable Edition of the agreement A.D.R. and national provisions. The transport must be carried out in the original packaging and in packages that are made from materials resistant to content and not likely to generate with this dangerous reactions. The process of loading and unloading of dangerous goods have received adequate training on the risks presented by prepared and on possible procedures to be taken in the event of emergency situations

IMDG/IATA

Keep separate from alkalis, powdered metals and flammable substances

14.7. Maritime transport in bulk according to IMO instruments

Transport in bulk is not foreseen

SECTION 15. Regulatory information

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

Restrictions relating to the product or contained substances (All. XVII Reg. EC 1907/2006): not applicable
Substances in Candidate List (art. 59 Reg. EC 1907/2006): the product does not contain SVHC in a proportion $\geq 0.1\%$.
Substances subject to authorisation (Ann. XIV Reg. CEC 1907/2006): the product does not contain SVHC in a proportion $\geq 0.1\%$.

Reg. EC 648/04: see 2.2

Reg. (EU) n. 1169/2011: see 2.2

Reg (UE) 528/2012: see to 2.2

Regulation (EU) 1332/2008; see p.2.2

Seveso category:

P6b - SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES

E1 - ENVIRONMENTAL HAZARDS

REGULATION (EU) No 1357/2014 - waste:

HP8 - Corrosive

HP14 - Ecotoxic

Substances in the Candidate List (REACH Article 59)

Based on available data, no SVHC substances are present

15.2. Chemical safety assessment

A Chemical Safety Assessment (CSA) and Chemical Safety Report (CSR) was carried out for this substance as required by REACH Regulation No. 1907/2006:

Peracetic acid.

SECTION 16. Other information

16.1. Other information

Points modified from previous revision: 4.1. Description of first aid measures, 4.2. Main symptoms and effects, both acute and delayed, 4.3. Indication of any immediate medical attention and special treatment needed, 5.1. medical attention and special treatment, 5.1. Extinguishing media, 5.2. Special hazards arising from the substance or mixture, 5.3. Recommendations for firefighters, 6.1. Personal precautions, protective equipment and emergency procedures, 6.2. Precautions environmental precautions, 6.3. Methods and materials for containment and clean-up, 6.4. Reference to other sections, 7.1. Precautions for safe handling, 7.2. Conditions for safe storage, including any incompatibilities, 7.3 Particular end-uses, 8.1. Control parameters, 8.2. Exposure controls, 10.1. Reactivity, 10.2. Chemical stability, 10.3. Possibility of hazardous reactions, 10.4. Conditions to avoid, 10.5. Incompatible materials, 10.6. Hazardous decomposition products, 11.1. Information on toxicological effects, 12.1. Toxicity, 12.4. Mobility in soil, 12.5. Results of PBT and vPvB assessment

Description of hazard statements set out in paragraph 3

H271 = May cause fire or explosion; strong oxidiser.

H302 = Harmful if swallowed.

H314 = Causes severe skin burns and eye damage.

H318 = Causes serious eye damage.

H332 = Harmful if inhaled.

H335 = May cause respiratory irritation.

H412 = Harmful to aquatic life with long lasting effects.

H226 = Flammable liquid and vapour.

H242 = Heating may cause a fire.

H290 = May be corrosive to metals.

H312 = Harmful in contact with skin.

H400 = Very toxic to aquatic life.

H410 = Very toxic to aquatic life with long lasting effects.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008: bridging principle/ substantially similar principle

Main normative references:

Reg. (CE) n. 1907 del 18/12/06 REACH (Registration, Evaluation and Authorisation of Chemicals) et seq.

Reg. (CE) 1272/2008 CLP (Classification Labelling and Packaging) et seq.

Regulation (EC) n. 648 of 31/03/04 (on detergents) et seq.

Regulation (UE) n. 1169/2011 (on the provision of food information to consumers)

Directive 2012/18/EU (on the control of major-accident hazards involving dangerous substances) et seq.

Regulation (UE) 528/2012 (Biocides) et seq.

Regulation (EU) 1332/2008 (Food enzymes)

Training required: This document must be submitted to the employer to determine the possible need for appropriate training for workers to ensure protection of human health and the environment.

n.a.: not applicable

n.d.: not available

ADR: Accord européen relative au transport International des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

ATE: Acute Toxicity Estimat

BFC: Bioconcentration Factor

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstract Service number

CAP: Centre AntiPoison

CE/EC number EINECS (European Inventory of existing Commercial Substances) e ELINCS (European List of notified Chemical Substances)

CL50/LC50: Lethal Concentration 50

DL50/LD50: Lethal Dose 50

COD: Chemical Oxygen Demand

DNEL: Derived No Effect Level

EC50: half maximal Effective Concentration

ERC: Environment Release Classes

EU/UE: European Union

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IMDG: International Maritime Dangerous Goods code

Kow: Octanol water partition coefficient

NOEC: No Observed Effect Concentration

OEL: Occupational Exposure Limit

PBT: Persistent Bioaccumulative and Toxic

PC: Product Categories

PNEC: Predicted No Effect Concentration

PROC: Process Categories

RID: Règlement concernant le transport International ferroviaire des marchandises dangereuses (Regulations concerning International rail transport of dangerous goods)

STOT: Target Organ Systemic Toxicity

STOT (RE): Repeated Exposure

STOT (SE): Single Exposure

STP: Sewage Treatment Plants

SU: Sector of Use

SVCH: Substance of Very High Concern

TLV: Threshold Limit Value

vPvB: Very Persistent Very Bioaccumulative

References and Sources:

• ECHA Registered Substances:

- <https://echa.europa.eu/web/guest/information-on-chemicals/registered-substances>
- SDS supplier
- GESTIS DNEL Database: <http://www.dguv.de/ifa/gestis/gestis-dnel-datenbank/index-2.jsp>
- GESTIS International Limit Value: <http://limitvalue.ifa.dguv.de>

This msds was made in good faith by technical Office on the basis of the information available at the date of the last revision. The person in charge must regularly inform the employees about the specific risks they encounter when using this substance/product. The information contained here relate only to the substance/the preparation indicated and may not apply if the product is used improperly or in combination with others. Nothing contained herein shall be construed as a guarantee, either express or implied. It is the responsibility of the user to ensure the opportunities and completeness of the information contained herein for their own particular use.

*** this tab annuls and replaces any previous edition. (IIXX)

Changes to the previous edition: updating to reg.878/2020

SUMI**Safe Use of Mixtures Information****AISE_SUMI_IS_4_1***Version 1.1, August 2018****Industrial uses; Automated task; Semi-automated task; Dedicated equipment***

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

General description of the process covered

The SUMI applies to industrial uses where products are used in closed process where opportunity for exposure arises. This Safe Use Information is based on the **AISE_SWED_IS_4_1**.

Operational Conditions

Maximum duration	480 minutes per day.
Range of application / Process conditions	Indoor Use. Process carried out at room temperature. In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	See section 8 of the SDS of this product for specifications.
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

<p>Don't eat or drink. Don't smoke. Don't use in proximity of open flame.</p>	
<p>Wash hands after use. Avoid contact with damaged skin. Do not mix with other products.</p>	
<p>Spillage instructions</p>	<p>Dilute with fresh water and mop up.</p>
<p>Hygiene practices</p>	<p>Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.</p>

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

Disclaimer

This is a document for communicating generic conditions of safe use of a product. It is the responsibility of the formulator to link this SUMI to the SDS of a specific product that he is selling.

If a SUMI (or associated SWED) code is mentioned in the SDS of a product, the formulator of that product declares that all substances in the mixture are present in such concentration, that the use of the product within the conditions of the SUMI is safe. When available, this safe use is ensured by evaluating the results of the chemical safety assessments as performed by the raw material suppliers. When no chemical safety assessment has been carried out by the supplier for an ingredient that contributes to the classification of the mixture, the formulator has performed a safety assessment himself.

Following Occupational Health legislation, the employer of workers that use products that are assessed as safe following SUMI conditions remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product.

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SUMI**Safe Use of Mixtures Information****AISE_SUMI_IS_7_5***Version 1.1, August 2018****Industrial spraying; Automated task; Open system; Long term***

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

General description of the process covered

The SUMI applies to industrial spraying products. This Safe Use Information is based on the AISE_SWED_IS_7_5.


Operational Conditions

Maximum duration	480 minutes per day.
Range of application / Process conditions	Indoor Use. Process carried out at room temperature. In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	See section 8 of the SDS of this product for specifications.
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

<p>Don't eat or drink. Don't smoke. Don't use in proximity of open flame.</p>	
<p>Wash hands after use. Avoid contact with damaged skin. Do not mix with other products.</p>	
<p>Spillage instructions</p>	<p>Dilute with fresh water and mop up.</p>
<p>Hygiene practices</p>	<p>Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.</p>

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

Disclaimer

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Following Occupational Health legislation, the employer of workers that use products that are assessed as safe following SUMI conditions remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product.

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SUMI**Safe Use of Mixtures Information****AISE_SUMI_IS_8b_1**

Version 1.1, August 2018

Transfer and dilution of concentrated product by using dedicated dosing system

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.


General description of the process covered

This SUMI applies to industrial uses where products are transferred to or diluted in a dedicated dosing system. This Safe Use Information is based on the **AISE_SWED_IS_8b_1_L** and **AISE_SWED_IS_8b_1_S**

Operational Conditions

Maximum duration	60 minutes per day.
Range of application / Process conditions	Indoor Use.
	Process carried out at room temperature.
	In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	Wear suitable gloves. See section 8 of the SDS of this product for specifications.
	 Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

<p>Don't eat or drink. Don't smoke. Don't use in proximity of open flame.</p>	
<p>Wash hands after use. Avoid contact with damaged skin. Do not mix with other products.</p>	
<p>Spillage instructions</p>	<p>Dilute with fresh water and mop up.</p>
<p>Hygiene practices</p>	<p>Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.</p>

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

Disclaimer

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SUMI**Safe Use of Mixtures Information****AISE_SUMI_IS_10_2***Version 1.1, August 2018****Brushing; Automated task***

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

General description of the process covered

This SUMI applies to industrial uses where the product is used in an automated brushing task. This Safe Use Information is based on the **AISE_SWED_IS_10_2**.

Operational Conditions

Maximum duration	480 minutes per day.
Range of application / Process conditions	Indoor Use. Process carried out at room temperature. In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	See section 8 of the SDS of this product for specifications.
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

<p>Don't eat or drink. Don't smoke. Don't use in proximity of open flame.</p>	
<p>Wash hands after use. Avoid contact with damaged skin. Do not mix with other products.</p>	
<p>Spillage instructions</p>	<p>Dilute with fresh water and mop up.</p>
<p>Hygiene practices</p>	<p>Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.</p>

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

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SUMI**Safe Use of Mixtures Information****AISE_SUMI_IS_13_4***Version 1.1, August 2018****Industrial uses; Treatment of articles by dipping or pouring***

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

General description of the process covered

This SUMI applies to industrial uses where articles are treated by dipping or pouring. This Safe Use Information is based on the **AISE_SWED_IS_13_4**.

Operational Conditions

Maximum duration	480 minutes per day.
Range of application / Process conditions	Indoor Use. Process carried out at room temperature. In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	See section 8 of the SDS of this product for specifications.
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

<p>Don't eat or drink. Don't smoke. Don't use in proximity of open flame.</p>	
<p>Wash hands after use. Avoid contact with damaged skin. Do not mix with other products.</p>	
<p>Spillage instructions</p>	<p>Dilute with fresh water and mop up.</p>
<p>Hygiene practices</p>	<p>Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.</p>

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

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SUMI**Safe Use of Mixtures Information****AISE_SUMI_PW_4_1***Version 1.1, August 2018****Professional uses; Semi-closed system***

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

General description of the process covered

The SUMI applies to professional uses where products are used in closed process where opportunity for exposure arises. This Safe Use Information is based on the **AISE_SWED_PW_4_1**.


Operational Conditions

Maximum duration	480 minutes per day.
Range of application / Process conditions	Indoor Use. Process carried out at room temperature. In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	See section 8 of the SDS of this product for specifications.
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

<p>Don't eat or drink. Don't smoke. Don't use in proximity of open flame.</p>	
<p>Wash hands after use. Avoid contact with damaged skin. Do not mix with other products.</p>	
<p>Spillage instructions</p>	<p>Dilute with fresh water and mop up.</p>
<p>Hygiene practices</p>	<p>Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.</p>

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

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SUMI**Safe Use of Mixtures Information****AISE_SUMI_PW_8a_1_G***Version 1.1, August 2018****Transfer of product to a container (bottle/bucket/machine)***

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.



General description of the process covered

This SUMI applies to professional uses where the product is transferred to or diluted in a container, such as a dispenser, bottle or bucket. Safe Use Information is based on the **AISE_SWED_PW_8a_1_L** and **AISE_SWED_PW_8a_1_S**.


Operational Conditions

Maximum duration	60 minutes per day.
Range of application / Process conditions	Indoor Use.
	Process carried out at room temperature.
	In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	Wear suitable gloves and eye protection. See section 8 of the SDS of this product for specifications.
	  Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

<p>Don't eat or drink.</p> <p>Don't smoke.</p> <p>Don't use in proximity of open flame.</p>	
<p>Wash hands after use.</p> <p>Avoid contact with damaged skin.</p> <p>Do not mix with other products.</p>	
Spillage instructions	Dilute with fresh water and mop up.
Hygiene practices	Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

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where

SUMI**Safe Use of Mixtures Information****AISE_SUMI_PW_10_1***Version 1.1, August 2018****Professional uses; Brushing after trigger spraying or brushing with tools***

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

General description of the process covered

This SUMI applies to professional uses where the product is brushed on a surface, with limited exposure to the hands, either after trigger spraying or through the use of tools such as a mop. This Safe Use Information is based on the **AISE_SWED_PW_10_1**.



Operational Conditions

Maximum duration	480 minutes per day.
Range of application / Process conditions	Indoor Use.
	Process carried out at room temperature.
	In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	See section 8 of the SDS of this product for specifications.
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

<p>Don't eat or drink. Don't smoke. Don't use in proximity of open flame.</p>	
<p>Wash hands after use. Avoid contact with damaged skin. Do not mix with other products.</p>	
<p>Spillage instructions</p>	<p>Dilute with fresh water and mop up.</p>
<p>Hygiene practices</p>	<p>Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.</p>

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

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SUMI**Safe Use of Mixtures Information****AISE_SUMI_PW_11_4***Version 1.1, August 2018****Professional uses; Spraying***

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

General description of the process covered

This SUMI applies to professional uses of products in a spraying application. This Safe Use Information is based on the **AISE_SWED_PW_11_4**.


Operational Conditions

Maximum duration	480 minutes per day.
Range of application / Process conditions	Indoor Use. Process carried out at room temperature. In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	See section 8 of the SDS of this product for specifications.
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

<p>Don't eat or drink. Don't smoke. Don't use in proximity of open flame.</p>	
<p>Wash hands after use. Avoid contact with damaged skin. Do not mix with other products.</p>	
<p>Spillage instructions</p>	<p>Dilute with fresh water and mop up.</p>
<p>Hygiene practices</p>	<p>Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.</p>

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

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SUMI**Safe Use of Mixtures Information****AISE_SUMI_PW_13_2***Version 1.1, August 2018****Professional uses; Treatment of articles by dipping, soaking or pouring***

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

General description of the process covered

This SUMI applies to professional uses where articles are treated by dipping or pouring. This Safe Use Information is based on the **AISE_SWED_PW_13_2**.



Operational Conditions

Maximum duration	60 minutes per day.
Range of application / Process conditions	Indoor Use. Process carried out at room temperature. In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	See section 8 of the SDS of this product for specifications.
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

<p>Don't eat or drink. Don't smoke. Don't use in proximity of open flame.</p>	
<p>Wash hands after use. Avoid contact with damaged skin. Do not mix with other products.</p>	
<p>Spillage instructions</p>	<p>Dilute with fresh water and mop up.</p>
<p>Hygiene practices</p>	<p>Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.</p>

Additional information depending on product composition

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WORKING ISTRUCTION TABLE



This tab provides instructions for appropriate and safe use of products and proper management of emergency situations for cleaning staff/users.

Attached to MSDS rel#6 del 11/25/22

Use description	Use in batch and other process (syn- thesis) where opportunity for exposure arises [PROC4], Industrial spraying [PROC7], Transfer of substance or mixture (charging and discharging) at dedicated facilities [PROC8B], Transfer of substance or mixture (charging and discharging) at nondedicated facilities [PROC8A], Application with rollers or brushes [PROC10], Non industrial spraying[PROC11], Treatment of articles by dipping and pouring [PROC13]
Product name	PERACID Forte
Classification of the product (100%)	H242 - Heating may cause a fire. H290 - May be corrosive to metals. H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled H314 - Causes severe skin burns and eye damage. H318 - Causes serious eye damage. H335 - May cause respiratory irritation. H410 - Very toxic to aquatic life with long lasting effects.
Classification of the diluted product (maximum use concentration)	At maximux concentration of use (0,3%, tq) the product is classified: H412 -Harmful to aquatic life with long lasting effects.
Handling of the product (100%)	Avoid contact and inhalation of vapors Wear protective gloves/clothing and eye/face protection. At work do not eat or drink.
Handling of the diluted product	Avoid contact and inhalation of vapors At work do not eat or drink.
DPI required concentrated product (racking, concentrated use, spillage...)	Chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3), safety glasses (EN 166).
Diluted product	No DPI required for intended uses

<p>In case of emergency (accidents involving exposure to the product)</p>	<p>Immediately inform the customer. Immediately inform the employer. Contact Poisons Centres tel. number in 1.4 section of the MSDS</p>
<p>Accidental release large quantities measures: concentrated product</p>	<p>Wear gloves, mask and protective clothing (for specifications refer to section 8.2. SDS) Possibly absorb it with inert materia or sucked it. After wiping up, wash with water the area and materials involved</p>
<p>Diluted product</p>	<p>Wear gloves and protective clothing (for specifications refer to section 8.2. SDS). Wash with water the area and materials involved</p>
<p>Storage of the product</p>	<p>Keep in original container closed tightly. Do not store in open or unlabelled containers. Keep containers upright and safe by avoiding the possibility of falls or collisions. Store in a cool and dry place, away from heat sources and direct exposure to sunlight.</p>
<p>In case of accidents, emergency or fire</p>	<p>Immediately inform the customer. Follow company emergency instruction.</p>