

PAA, PEROXYACETIC ACID 22%

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%
Acetic acid	(CAS No) 64-19-7	15-65
Peroxyacetic acid	(CAS No) 79-21-0	5-30
Hydrogen peroxide	(CAS No) 7722-84-1	10 - 30

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.
- First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if breathing is affected. If breathing is difficult, supply oxygen.
- First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. Get medical attention immediately.
- First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Get medical attention immediately. Continue rinsing.
- First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention immediately.

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

- Symptoms/injuries : Causes severe skin burns and eye damage. May cause respiratory irritation.
- Symptoms/injuries after inhalation : May cause respiratory irritation.
- Symptoms/injuries after skin contact : Causes severe skin burns and eye damage.
- Symptoms/injuries after eye contact : Causes severe eye damage.
- Symptoms/injuries after ingestion : May cause gastrointestinal irritation.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Sand. Water spray. Water fog.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Heating may cause a fire.
- Explosion hazard : Under fire conditions closed containers may rupture or explode. Risk of explosion if heated under confinement.
- Reactivity : No data available.

5.3. Advice for firefighters

- Firefighting instructions : Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment. Prevent human exposure to fire, fumes, smoke and products of combustion. Firefighting equipment should be thoroughly decontaminated after use.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area. Keep upwind. Ventilate area. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

6.1.1. For non-emergency personnel

- Protective equipment : Wear Protective equipment as described in Section 8.
- Emergency procedures : Evacuate unnecessary personnel.

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6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Eliminate ignition sources. Recover free liquid with corrosion-resistant pumps. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

6.4. Reference to other sections

See Sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Provide good ventilation in process area to prevent formation of vapor. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not breathe vapours. Keep away from sources of ignition - No smoking.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : DO NOT store near alkalis. Store in a cool dry place. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to heat. Always replace drum, pail, or IBC cap prior to moving the container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Acetic acid (64-19-7)	
ACGIH TWA (ppm)	10 ppm
ACGIH STEL (ppm)	15 ppm
OSHA PEL (TWA) (mg/m ³)	25 mg/m ³
OSHA PEL (TWA) (ppm)	10 ppm

Hydrogen peroxide (7722-84-1)	
ACGIH TWA (ppm)	1 ppm
OSHA PEL (TWA) (mg/m ³)	1.4 mg/m ³
OSHA PEL (TWA) (ppm)	1 ppm

Peroxyacetic acid (79-21-0)	
ACGIH STEL (ppm)	0.4 ppm
Remark (OSHA)	OELs not established

8.2. Exposure controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment : Gloves. Wear chemical goggles and face shield in combination. Protective clothing.



Hand protection : Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Be aware that the chemical may penetrate the gloves. Frequent changes are advisable. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl.

Eye protection : Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection : Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

Respiratory protection : Use NIOSH-approved dust/particulate respirator. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Clear, colorless
Odor	: Pungent. Vinegar-like
Odor Threshold	: No data available
pH	: 0.5 – 1.5
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 9.17 – 10.01 lbs/gallon
Solubility	: Complete
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

May explode or react violently upon contact with incompatible materials.

10.4. Conditions to avoid

Elevated temperature. Heat, flame. Sparks. Direct sunlight.

10.5. Incompatible materials

Reducing agents. Metal salts. Alkalis. May ignite flammable substances and organic solvents. Corrodes ferrous and non-ferrous metals. Zinc. Aluminum.

10.6. Hazardous decomposition products

Oxygen. Steam. acetic acid.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Not classified. Dermal: Not classified.

Acetic acid (64-19-7)	
LD50 oral rat	3310 mg/kg
LC50 inhalation rat (mg/l)	11.4 mg/l/4h

Hydrogen peroxide (7722-84-1)	
LD50 oral rat	801 mg/kg
LD50 dermal rat	4060 mg/kg
LD50 dermal rabbit	2000 mg/kg

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Hydrogen peroxide (7722-84-1)	
LC50 inhalation rat (mg/l)	2 mg/l/4h
ATE CLP (oral)	801 mg/kg bodyweight
ATE CLP (dermal)	2000mg/kg bodyweight
ATE CLP (vapours)	2.0 mg/l/4h
ATE CLP (dust,mist)	2.0 mg/l/4h

Peroxyacetic acid (79-21-0)	
LD50 oral rat	1540 mg/kg
LD50 dermal rabbit	1410 µl/kg
ATE CLP (oral)	500mg/kg bodyweight
ATE CLP (dermal)	1100mg/kg bodyweight
ATE CLP (gases)	4500ppmv/4h
ATE CLP (vapours)	11.0 mg/l/4h
ATE CLP (dust,mist)	1.5 mg/l/4h

Skin corrosion/irritation : Causes severe skin burns and eye damage.
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified.

Hydrogen peroxide (7722-84-1)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes severe skin burns and eye damage.
Symptoms/injuries after eye contact	: Causes severe eye damage.
Symptoms/injuries after ingestion	: May cause gastrointestinal irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No information available.

12.2. Persistence and degradability

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Persistence and degradability	No information available.

12.3. Bioaccumulative potential

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Bioaccumulative potential	No information available.

12.4. Mobility in soil

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Ecology - soil	No information available.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

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SECTION 14: Transport information

In accordance with DOT

Transport document description : UN3109 Organic peroxide type F, liquid (Peroxyacetic acid, Hydrogen Peroxide), 5.2
UN-No.(DOT) : 3109
DOT NA no. : UN3109
Proper Shipping Name (DOT) : Organic peroxide type F, liquid
(Peroxyacetic acid, Hydrogen Peroxide)
Department of Transportation (DOT) Hazard Classes : 5.2 - Class 5.2 - Organic Peroxide 49 CFR 173.128
Hazard labels (DOT) : 5.2 - Organic peroxide



Packing group (DOT) : None
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 10 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 25 L
DOT Vessel Stowage Location : D - The material must be stowed "on deck only" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers or one passenger per each 3 m of overall vessel length, but the material is prohibited on passenger vessels in which the limiting number of passengers is exceeded.
DOT Vessel Stowage Other : 12 - Keep as cool as reasonably practicable,40 - Stow "clear of living quarters",52 - Stow "separated from" acids,53 - Stow "separated from" alkaline compounds

Additional information

Other information : No supplementary information available.

Transport by sea

UN-No. (IMDG) : 3109
Proper Shipping Name (IMDG) : ORGANIC PEROXIDE TYPE F, LIQUID
Class (IMDG) : 5.2 - Organic peroxides
Subsidiary risk (IMDG) : 8

Air transport

UN-No.(IATA) : 3109
Proper Shipping Name (IATA) : ORGANIC PEROXIDE TYPE F, LIQUID
Class (IATA) : 5.2 - Organic Peroxides
Subsidiary risk (IATA) : 8

SECTION 15: Regulatory information

15.1. US Federal regulations

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All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory or are exempt

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Fire hazard
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Acetic acid (64-19-7)

CERCLA	5000 lb
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Hydrogen peroxide (7722-84-1)

Section 302 (EHS) TPQ	1000 lb
Section 304 EHS RQ	1000 lb

Peroxyacetic acid (79-21-0)

Section 302 (EHS) TPQ	500 lb
Section 304 EHS RQ	500 lb
CERCLA RQ	
Section 313	Listed on US SARA Section 313

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15.2. International regulations

No additional information available.

15.3. US State regulations

WARNING! This product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

Sulfuric acid (7664-93-9)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	
U.S. - California - Proposition 65 - Other information		Strong inorganic acid mists containing sulfuric acid		

Acetic acid (64-19-7)
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Sulfuric acid (7664-93-9)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

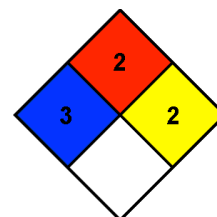
Hydrogen peroxide (7722-84-1)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Peroxyacetic acid (79-21-0)
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

SECTION 16: Other information

Indication of changes : Revision 1.0: New SDS Created.
Revision date : 10/07/2015
Other information : Author: ZPT.

NFPA health hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.
NFPA fire hazard : 2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.
NFPA reactivity : 2 - Normally unstable and readily undergo violent decomposition but do not detonate. Also: may react violently with water or may form potentially explosive mixtures with water.



HMIS III Rating

Health : 3
Flammability : 2
Physical : 2
Personal Protection :

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product