

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **PAAS**

Product Use: Low foam sanitizer/disinfectant.

Company Identification:

US Headquarters

ORCHEM CORPORATION

4927 Beech Street

Cincinnati, Ohio 45212

General Information

Health/Transportation Emergency-Chem-Tel

Fax

E-Mail

Printing Date: 05/27/2015

Contact Information:

(513) 874-9700

(800) 255-3924

(513) 874-3624

information@orchemcorp.com

2. HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Flammable liquids (Category 4), H227

Acute toxicity, Oral (Category 4), H302

Skin irritation (Category 1B), H314

Serious eye damage (Category 1), H318

Specific target organ toxicity, single exposure (Category 3), H335

Acute aquatic toxicity (Category 1), H400

Chronic aquatic toxicity (Category 2), H411

PICTOGRAM:



SIGNAL WORD: DANGER

HAZARD STATEMENTS – LABEL ELEMENTS

Health Hazard Statement(s)

H227

Combustible liquid.

H302

Harmful if swallowed.

H314

Causes severe skin burns and eye damage.

H318

Causes serious eye damage.

H335

May cause respiratory irritation.

H400

Very toxic to aquatic life.

H411

Toxic to aquatic life with long lasting effects.

Physical Hazards Statement(s)

None.

Precautionary Statement(s) – Prevention

P210

Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

P260

Do not breathe dust, fume, gas, mist, vapors, and spray.

P264

Wash skin and contaminated clothing thoroughly after handling.

P270

Do not eat, drink or smoke when using this product.

P271

Use only outdoors or in a well-ventilated area.

P273

Avoid release to the environment.

P280

Wear protective gloves, eye protection, face protection.

Precautionary Statement(s) – Response

P301+ P330 + P331 + P310

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.

P303 + P353 + P361 + P363 IF ON SKIN (or hair): Rinse skin with water. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

P370 + P378 IN CASE OF FIRE: Use appropriate media to extinguish.

Precautionary Statement(s) – Storage

P403 + P233 + P235 Store in a well-ventilated place. Keep container tightly closed. Keep cool.

P405 Store locked up.

Precautionary Statement(s) – Disposal

P501 Dispose of contents/container in accordance with applicable local, regional, national, and/or international regulations.

Hazards Not Otherwise Classified (HNOC)

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects. 7% of the mixture consists of components of unknown long-term hazards to the aquatic environment.

3. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT(S)	CAS#	WEIGHT %
hydrogen peroxide	7722-84-1	20-30
acetic acid	64-19-7	5-10
peracetic acid	79-21-0	5-10
etidronic acid	2809-21-4	1-3
sulfuric acid	7664-93-9	< 1
other components below reportable levels	---	50-60

*Exact percentages are withheld as trade secrets.

4. FIRST AID MEASURES

INHALATION: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

SKIN CONTACT: Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

INGESTION: Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED: Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED: Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

GENERAL INFORMATION: If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

UNSUITABLE EXTINGUISHING MEDIA: Do not use water jet as an extinguisher, as this will spread the fire.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

FIRE FIGHTING EQUIPMENT/INSTRUCTIONS: In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

SPECIFIC METHODS: Use standard firefighting procedures and consider the hazards of other involved materials.

GENERAL FIRE HAZARDS: Combustible liquid.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Should not be released into the environment.

Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

ENVIRONMENTAL PRECAUTIONS: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Keep away from open flames, hot surfaces and sources of ignition. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: Store locked up. Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS:

US. OSHA Table Z-1 Limits for Air Contaminates (29 CFR 1910.1000)

COMPONENT	CAS#	ACGIH TWA	ACGIH STEL	OSHA PEL	NIOSH STEL	NIOSH TWA
acetic acid	64-19-7	10 ppm	15 ppm	25 mg/m ³ , 10 ppm	37 mg/m ³ , 15 ppm	25 mg/m ³ , 10 ppm
hydrogen peroxide	7722-84-1	1 ppm	---	1.4 mg/m ³	---	1.4 mg/m ³
peracetic acid	79-21-0	---	0.4 ppm – inhalable fraction and vapor	---	---	---
sulfuric acid	7664-93-9	0.2 mg/m ³ – thoracic fraction	---	1 mg/m ³ , 1 ppm	---	1 mg/m ³ , 1 ppm

BIOLOGICAL LIMIT VALUES: No biological exposure limits noted for the ingredient(s).

APPROPRIATE ENGINEERING CONTROLS: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower (ANSI Z358.1) must be available when handling this product.

PERSONAL PROTECTIVE EQUIPMENT

Eyes: Wear chemical splash goggles that meet the requirements of 29 CFR 1910.133 or European Standard EN 166.

Skin: Wear appropriate protective gloves to prevent skin exposure (29 CFR 1910.138 or EN374).

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

GENERAL HYGIENE CONSIDERATIONS: When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Appearance:	Clear
Color:	Colorless
Odor:	Sharp, pungent vinegar-like
Boiling Point/Range:	100°C
Freezing Point/Range:	No Data
Flash Point:	83°C (PMCC)
Phosphorous Content as %P:	None
Vapor Pressure:	22 mmHg @ 25°C
Vapor Density (air=1):	No Data
V.O.C.:	7% estimated
Specific Gravity (water=1):	1.1
Water Solubility:	Soluble
pH:	> 1
Volatility:	No Data
Evaporation Rate:	No Data
Weight per Gallon	9.2 lb. /gal

10. STABILITY AND REACTIVITY

REACTIVITY: Reacts violently with strong alkaline substances. This product may react with reducing agents.

CHEMICAL STABILITY: Material is stable under normal conditions.

POSSIBILITY OF HAZARDOUS REACTIONS: No dangerous reaction known under conditions of normal use.

CONDITIONS TO AVOID: Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Do not mix with other chemicals. Contact with incompatible materials.

INCOMPATIBLE MATERIALS: Bases. Strong oxidizing agents. Reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Toxic gas.

11. TOXICOLOGICAL INFORMATION

INFORMATION ON LIKELY ROUTES OF EXPOSURE:

Inhalation - May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

Skin contact - Causes severe skin burns.

Eye contact - Causes serious eye damage.

Ingestion - Causes digestive tract burns. Harmful if swallowed.

SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS: Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

INFORMATION ON TOXICOLOGICAL EFFECTS:

Acute toxicity - In high concentrations, vapors are anesthetic and may cause headache, fatigue, dizziness and central nervous system effects. Harmful if swallowed. May cause respiratory irritation.

TOXICITY (ACUTE):

Product/Ingredient Name	CAS#	Oral LD50	Dermal LD50	Inhalation LC50
hydrogen peroxide	7722-84-1	Rat 1193-1270 mg/kg	Rabbit > 2000 mg/kg	Rat > 170 mg/m ³ , 4 h
acetic acid	64-19-7	Rat 3310 mg/kg	---	---
peracetic acid	79-21-0	Rat 1656 mg/kg	Rabbit 1147 mg/kg	Mouse 204 mg/m ³ , 4 h
etidronic acid	2809-21-4	Rat 3130 mg/kg	Rabbit > 10000 mg/kg	---
sulfuric acid	7664-93-9	Rat 2140 mg/kg	---	Rat 375 mg/m ³ , 4 h

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/eye irritation: Causes serious eye damage.

Respiratory or skin sensitization:

Respiratory sensitization - Not a respiratory sensitizer.

Skin sensitization - This product is not expected to cause skin sensitization.

Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

CARCINOGENICITY:

Product/Ingredient Name	CAS#	ACGIH	IARC	NTP
hydrogen peroxide	7722-84-1	A3	3	---

Reproductive toxicity: This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure: May cause respiratory irritation.

Specific target organ toxicity -repeated exposure: Not classified.

Aspiration hazard: Not an aspiration hazard.

Chronic effects: Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL INFORMATION: Very toxic to aquatic life. Toxic to aquatic life with long lasting effects. Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

ECOTOXICITY (ACUTE):

Product/Ingredient Name	CAS#	Algae EC50	Fish LC50	Crustacea EC50
peracetic acid	79-21-0	0.16 mg/L, 72 h	Bluegill 1.1 mg/L, 96 h	Daphnia 0.73 mg/L, 48 h
sulfuric acid	7664-93-9	> 100 mg/L, 72 h	Bluegill 16-28 mg/L, 96 h	Daphnia > 100 mg/L, 48 h

* Estimates for product may be based on additional component data not shown.

ECOTOXICITY (CHRONIC):

Product/Ingredient Name	CAS#	Algae NOEC	Fish NOEC	Crustacea NOEC
peracetic acid	79-21-0	---	0.0022 mg/L, 33 d	Daphnia 0.08 mg/L, 21 d
sulfuric acid	7664-93-9	---	0.025 mg/L, 65 d	Daphnia 0.15 mg/L, 35 d

* Estimates for product may be based on additional component data not shown.

Persistence And Degradability: No information available.

Bioaccumulation: Partition coefficient n-octanol / water (log Kow) of acetic acid = -0.17.

Mobility In Soil: No information available.

Other Adverse Effects: No other adverse effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this product.

13. DISPOSAL CONSIDERATIONS

DISPOSAL INSTRUCTIONS: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

LOCAL DISPOSAL REGULATIONS: Dispose in accordance with all applicable regulations.

HAZARDOUS WASTE CODE: The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

WASTE FROM RESIDUES / UNUSED PRODUCTS: Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

CONTAMINATED PACKAGING: Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORTATION INFORMATION

U.S. DOT Bill of Lading Description: UN 3109, organic peroxide type F, liquid (Peroxyacetic acid, type F stabilized), 5.2, II

Special Precautions For User: Read safety instructions, SDS and emergency procedures before handling.

Special Provisions: IP5

Packaging Exceptions: 152

Packaging Non Bulk: 225

Packaging Bulk: 225

ERG Number: 145



15. REGULATORY INFORMATION

INTERNATIONAL INVENTORIES

All components of this product are listed on the following inventories: U.S.A. (TSCA), Canada (DSL).

U.S. REGULATIONS

CALIFORNIA PROPOSITION 65: This product does not contain any chemicals known to the state of California to cause cancer, birth defects, or any other reproductive harm.

STATE RIGHT TO KNOW (RTK)

INGREDIENT(S)	CAS#	MA	NJ	PA	RI
hydrogen peroxide	7722-84-1	X	X	X	X
acetic acid	64-19-7	X	X	X	X
peracetic acid	79-21-0	X	X	X	X
sulfuric acid	7664-93-9	X	X	X	X

CERCLA/SARA 302/304

INGREDIENT(S)	CAS#	WEIGHT %	CERCLA/SARA 302 RQ(LBS)	SECTION 302TPQ (LBS)
hydrogen peroxide	7722-84-1	20-30	1000	1000
peracetic acid	79-21-0	5-10	500	500
sulfuric acid	7664-93-9	< 1	1000	1000

SARA 311/312 Hazard categories

Immediate:	X
Delayed:	---
Fire:	---
Reactivity:	---
Sudden Release Of Pressure:	---

SARA 313:

CAS# 79-21-0 and 7664-93-9 are listed.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List:

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

Peracetic Acid (CAS 79-21-0)

Sulfuric Acid (CAS 7664-93-9)

Safe Drinking Water Act (SDWA):

Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number:

Sulfuric Acid (CAS 7664-93-9) 6552

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c)):

Sulfuric Acid (CAS 7664-93-9) 20 %WV

DEA Exempt Chemical Mixtures Code Number:

Sulfuric Acid (CAS 7664-93-9) 6552

FIFRA Information

EPA Pesticide Registration Number: 10324-214-48062

EPA Statement: This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Listed below is the hazard information as required on the pesticide label.

Signal word: DANGER
KEEP OUT OF REACH OF CHILDREN

Hazard statement: CORROSIVE. Causes irreversible eye damage and skin burns. Harmful if swallowed. May be fatal if inhaled. Do not get into eyes, on skin or on clothing. Do not breathe vapors or spray mist.

16. OTHER INFORMATION

Hazardous Material Information System (U.S.A.) Health: 3 Flammability: 2 Physical Hazard: 0

National Fire Protection Association (U.S.A.) Health: 3 Flammability: 2 Instability: 0

HMIS and NFPA use a numbering scale ranging from 0-4 to indicate the degree of hazard. A value of 0 means that the substance possesses essentially no hazard; a rating of 4 indicates high hazard.

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Prepared by: Compliance Group

The information contained in this Safety Data Sheet is intended to comply with the requirements of 29 CFR 1910.1200. This information is believed to be accurate and based on data available to ORCHEM CORPORATION at this time. It is intended to be used as a guide to the safe handling and use by properly trained individuals. It is the end users responsibility to determine the suitability of the information for their particular purposes. This information is provided without warranty.