



SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : PERASHIELD 15%
Product use : Antimicrobial solution
Chemical Family : Oxidizer
Registration Number : 63838-2
Product Code : 63
Manufacturer or supplier's details
Company : MORR, Inc.
Address : 6500 Flotilla Street
Commerce, CA 90040
office@MORR.com
855-TRY-MORR
www.MORR.com

Emergency telephone number : CHEMTREC 24 Hr. Emergency Phone:
(800) 424-9300

SECTION 2. HAZARDS IDENTIFICATION

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). These requirements differ from the classification criteria and hazard information required for safety data sheets of non-pesticide chemicals. Please see Section 15 for FIFRA labeling information.

Classification of the Substance or Mixture:

Skin Corrosion - Category 1

Serious Eye Damage - Category 1

Oxidizing Liquids - Category 2

Corrosive to Metals - Category 1

Organic Peroxides - Type F

Acute Toxicity - Oral Category 4

Acute Toxicity - Dermal Category 5

Hazardous to the Aquatic Environment, Chronic Toxicity Category 1

Hazardous to the Aquatic Environment, Acute Toxicity Category 1



Signal Word: DANGER

Hazard Statements:

- Causes severe skin burns and eye damage
- May intensify fire; oxidizer
- May be corrosive to metals
- Harmful if swallowed
- May be harmful in contact with skin
- Very toxic to aquatic life with long lasting effects
- Heating may cause fire

Precautionary Statements:

Prevention

- Wear protective gloves/protective clothing/eye protection/face protection.
- Wash hands thoroughly after handling
- Keep away from heat, sparks, or open flames - No smoking.
- Keep/Store away from clothing/combustible materials.
- Do not eat, drink or smoke when using this product.
- Keep only in original container.
- Take any precaution to avoid mixing with combustibles .
- Avoid release to the environment

Response

- IF SWALLOWED** : Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.
- IF ON SKIN (or hair)** : Remove/Take off immediately all contaminated clothing . Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
- IF INHALED** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.nd keep at rest in a position
- 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/physician. For specific treatment see Section 4 First Aid. Wash contaminated clothing before reuse . In case of fire: Use water for extinction. Absorb spillage to prevent material damage.

Storage

- It is recommended to store this product at temperatures where the bulk liquid will not exceed 86°F / 30°C. Keep cool.
- Store away from other materials. Protect from sunlight.
- Store locked up.
- Store in a corrosive resistant container with a resistant inner liner.

Disposal

Dispose of contents/container in accordance with local regulations.

Hazards not Otherwise Classified:

No other hazards classified.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Synonym	CAS Number	Concentration
HYDROGEN PEROXIDE	H2O2	7722-84-1	21.5-22.5%
PERACETIC ACID	PAA	79-21-0	14.8-15.7%
ACETIC ACID	N/A	64-19-7	15.8-16.6%

SECTION 4 - FIRST-AID MEASURES

- If inhaled** : Remove source of exposure or move person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor. Symptoms of pulmonary edema can be delayed up to 48 hours after exposure. If direct contact during rescue breathing poses a threat to the first aid provider, " Avoid mouth-to-mouth contact by using a barrier device.
- skin contact** : Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Rinse skin with lukewarm, gently flowing water/shower with a flushing duration of 30 minutes. Immediately call POISON CENTER/doctor. Wash contaminated clothing before re-use.
- eye contact** : Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for 30 minutes. Take care not to rinse contaminated water into the unaffected eye or into the face. Immediately call a POISON CENTER/doctor.
- Ingestion** : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. If vomiting occurs naturally, lie on your side, in the recovery position.
- Most Important Symptoms and Effects, both Acute and Delayed** : Causes severe skin burns and eye damage, burning of the mouth, throat, and esophagus.
- Indication of any Immediate Medical Attention and Special Treatment Needed:** : Treat symptomatically

SECTION 5 - FIRE-FIGHTING MEASURES

Extinguishing Media	: Use water spray, powder, foam, carbon dioxide.
Special hazards arising from the substance or mixture	: Non combustible. May give off irritating or toxic fumes (or gases) in a fire.
Flammability classification (OSHA 29 CFR 1910.106) (Hazcom 2012)	: Non flammable May cause fire and explosions when in contact with incompatible materials.
Hazardous Combustion Products	: In the event of a fire, wear full protective clothing and
Special protective equipment and precautions for firefighters	NIOSH-approved self-contained breathing apparatus.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Methods and materials for **containment and cleaning up:** SMALL SPILLS (less than 1 gallon): Neutralize with soda ash or cover with dry earth, sand or other non combustible material, place into loosely covered plastic containers for later disposal. If neutralized, material can be diluted into drain. LARGE SPILL: Restrict access to area until completion of clean up. Prevent liquid from entering sewers or waterways. Stop or reduce leak if safe to do so. Dike with inert material (sand, earth, etc.). Collect into plastic containers for disposal. Ensure adequate decontamination of tools and equipment following clean up.

Special spill response procedures: Collect spills in plastic containers only. Prevent from entering sewers, waterways, or low areas.

SECTION 7 - HANDLING AND STORAGE

Precautions for Safe Handling	: Wear at least chemical resistant gloves and eye protection, face shield, and chemical resistant garments when handling, moving or using this product. Do not contaminate water, food, or feed by storage or disposal.
Conditions for Safe Storage	: Store in a cool, dry, well ventilated place away from direct sunlight. Keep container closed when not in use.
Incompatible Materials	: Avoid strong reducing agents, soft metals, heat and bases (unless product has been diluted to less than 1000ppm, then bases may be used to gradually adjust to a pH of less than 9).

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS:		OSHA PEL		ACGIH TLV	
CHEMICAL NAME	CAS NO.	TWA	STEL/CEILING	TWA	STEL
ACETIC ACID	64-19-7	10 ppm	15 ppm/40 ppm (CalOSHA)	10 ppm	15 ppm
HYDROGEN PEROXIDE	7722-84-1	1 ppm	1 ppm/N/A (CalOSHA)	1 ppm	N/A
PERACETIC ACID	79-21-1	N/A	N/A	N/A	0.4 ppm

Ventilation and engineering measures: **Forced air, local exhaust, or open air is adequate.**

Respiratory Protection : In case of confined spaces or high levels encountered in the air, wear self contained breathing apparatus.

Skin Protection : Wear chemical resistant gloves and chemical resistant garments when handling , wash garments before re-use.

Eye/Face Protection : Wear chemical goggles; also wear a face shield if splashing hazard exists.

Other Protective Equipment : Eye wash facility and emergency shower should be in close proximity.

General Hygiene Conditions : Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Handle in accordance with good industry hygiene and safety practice.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Clear colorless liquid

Odor : Vinegar odor

pH : <1 (1:10)

Melting/Freezing point : <-20° F / <-29 ° C

Initial boiling point and boiling range : No information available

Flash Point : >207° F / >98 ° C

Flammability (solid, gas) : Non flammable

Vapor Pressure (mm Hg) : 27

Specific gravity: : 1.12 g/mL

Solubility in Water: : Complete

Auto ignition Temperature: : >518° F/ >270° C

Decomposition temperature: : No information available

Viscosity: : 10-20 cSt at 20°C / 68°F

Volatiles (% by weight): : >99

Volatile Organic Compounds (VOC's) : No information available

SECTION 10 – STABILITY AND REACTIVITY

Reactivity	:	Reactive with bases, metals, reducing agents and combustible materials
Chemical Stability	:	Stable for up to 1 year when stored under normal conditions.
Possibility of Hazardous	:	May react with incompatible materials
Reactions Conditions to Avoid	:	Incompatible materials and high temperatures
Incompatible Materials	:	Reactive with bases, metals, reducing
Hazardous Decomposition	:	agents and combustible materials Oxygen which supports
Products:	:	combustion.

SECTION 11 – TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry - inhalation: YES

Routes of entry - skin & eye: YES

Routes of entry - ingestion: YES

Routes of entry - skin absorption: NO

Potential Health Effects:

Signs and symptoms of short term (acute) exposure:

Inhalation	:	Inhalation of the mist may produce severe irritation of respiratory tract, characterized by coughing, choking, shortness of breath, headaches, dizziness, nausea, weakness and/or drowsiness.
Ingestion	:	Corrosive! Swallowing causes severe burns of mouth, throat, and stomach. Severe scarring of tissue, corrosion, permanent tissue destruction and death may result. Symptoms may include severe pain, nausea, vomiting, diarrhea, shock, hemorrhaging and/or fall in blood pressure. Damage may appear days after exposure.
Skin	:	Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.
Eye	:	A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.

Potential Chronic Health Effects:

Mutagenicity	:	Not a known sensitizer in humans or animals.
Carcinogenicity	:	No components are listed as carcinogens by ACGIH , IARC, OSHA, or NTP.
Reproductive effects	:	Not a known sensitizer in humans or animals.
Sensitization to material	:	Not a known sensitizer in humans or animals.
Specific target organ effects	:	No information available
Medical conditions aggravated by overexposure	:	No information available

Toxicological data: The calculated ATE values for this mixture are :

ATE oral = 494 mg/kg

ATE dermal = 2281 mg/kg

ATE inhalation = >20 mg/L or >20,000 ppm

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity:

Acute Toxicity to fish LC50 0.99 mg/L (fathead minnow)

Acute Toxicity to crustacean LC50 0.27 mg/L (Ceriodaphnia dubia).

Acute Toxicity to marine LC50 LC50 2.17 mg/L (Pacific Silverside)

Chronic Toxicity to fish LC50 1.16 mg/L (fathead minnow)

Chronic Toxicity to crustacean LC50 0.86 mg/L (Ceriodaphnia dubia)

Chronic Toxicity to marine LC50 0.49 mg/L (Pacific Silverside)

Persistence and degradability: Not expected to persist. Expected to readily biodegrade.

Bioaccumulation potential: Not expected to bio accumulate.

Mobility in soil: No information available

SECTION 13 – DISPOSAL CONSIDERATIONS

- Handling for disposal** : Handling for disposal: Do not contaminate water, food, or feed by storage and/or disposal. When handling refer to protective measures listed in sections 7 and 8. Empty residue from containers, rinse container well.
- Method of disposal** : Dispose of in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.
- RCRA** : If product becomes a waste, it does meet the criteria of a hazardous waste as defined by the US EPA , because of: Corrosivity D002
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SECTION 14 – TRANSPORTATION INFORMATION

Certain shipping modes or package sizes may have exceptions from the transport regulations. The classification provided may not reflect those exceptions and may not apply to all shipping modes or package sizes. Please note the GHS and DOT Standards are NOT identical and therefore can have varying classifications

US 49 CFR/DOT/IATA/IMDG Information:

- UN No.** : 3109
- UN Proper Shipping Name** : Organic peroxide type F, liquid (<=25% peracetic acid with <=26% hydrogen peroxide)
- Transportation hazard class(es):** 5.2 (8)
- Environmental hazards** : Not a Marine Pollutant
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SECTION 15 – REGULATORY INFORMATION

FIFRA Classification/Typical Hazard Labeling, as outlined in EPA Label Review Manual Hazard Data

Signal Word	DANGER
Acute Toxicity, oral	Category III: Harmful if swallowed
Acute Toxicity, dermal	Category III: Harmful if absorbed through skin
Acute Toxicity, inhalation	Category II: May be fatal if inhaled
Skin irritation/corrosion	Category I: Corrosive. Causes skin burns
Serious eye damage	Category I: Corrosive, Causes irreversible eye damage
Sensitization	Not Classified (NC)
Environmental (aquatic) toxicity	This pesticide is toxic to fish and other aquatic organisms.

US Federal Information:

- TSCA information** : All components are listed on the TSCA inventory .
- US CERCLA Reportable quantity (Hazardous substance RQ)** : Acetic acid has a RQ of approximately 70000 lbs. of as is chemical.
- US EPCRA Reportable quantity (Extremely hazardous substance RQ)** : Peracetic acid has a RQ of approximately 8900 lbs. of as is chemical.
- SARA Title III Section 302 Threshold Planning Quantity (TPQ)** : Peracetic acid has a TPQ of approximately 8900 lbs. of as is chemical.
- SARA Title III** : Reactivity Hazard, Acute Health Hazard
- International Information** : WHMIS: Class C: Oxidizing material. Class E: Corrosive material
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations.

SECTION 16 - OTHER INFORMATION

NFPA	Health Hazards 3	Flammability 1	Stability 1	Special Hazards OX, COR
HMIS	Health Hazards 3	Flammability 1	Physical Hazard 1	Personal Protection C

Uniform Fire Code (NFPA 400): Organic Peroxide: Class IV, Liquid

NFPA/HMIS Ratings Legend

Severe = 4; **Serious** = 3; **Moderate** = 2; **Slight** = 1; **Minimal** = 0
Special hazards: OX = Oxidizer; COR = Corrosive
Personal Protection = C (safety glasses, gloves, protective apron)

Legend:

- SARA** : The Superfund Amendments and Reauthorization Act
- RCRA** : Resource Conservation and Recovery Act
- TSCA** : Toxic Substances Control Act
- CFR** : Code of Federal Regulations
- DOT** : Department of Transportation
- ATE** : Acute Toxicity Estimate