



Rooted in Science

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

1.1 Product Identifier

Trade Name Oxyflor

SDS Date March 30, 2017

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Product Use: Soil Amendment

Uses Advised Against: To be used only where there is a recognized need. Do not exceed the appropriate dose rates.

1.3 Details of the Supplier of the Substance or Mixture

Manufacturer: Floratine Products Group, Inc.
355 East South Street
Collierville, TN 38017
+1 901-853-2898

1.4 Emergency Telephone Number

Emergency Spill Information 1(800) 535-5053 for US and Canada (INFOTRAC)
+1(352) 323-3500 for International Calls (call INFOTRAC collect)

Other Product Information: cs@floratine.com

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

CLP/GHS Classification (1272/2008):

Skin Corrosive Category 1C (H314)

Oxidizing Liquid Category 2 (H272)

EU Classification (67/548/EEC): O, C, Xn R8, R22, R34

2.2 Label Elements

Danger!



Contains Hydrogen Peroxide

Hazard Phrases

H314 Causes severe skin burns and eyes damage.

H272 May intensify fire; oxidizer.

Precautionary Phrases:

P210 Keep away from heat.

P220 Keep away from clothing and other combustible materials.

P221 Take any precaution to avoid mixing with combustible materials.

P260 Do not breathe vapors, spray or mists.

P264 Wash thoroughly after handling.

P280 Wear protective gloves, protective clothing, eye protection and face protection.

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

P310 Immediately call a POISON CENTER or doctor.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with soap and water.

P363 Wash contaminated clothing before reuse.

P310 Immediately call a POISON CENTER or doctor.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P310 Immediately call a POISON CENTER or doctor.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor.

P370 + P378 In case of fire: Use large amounts of water to extinguish.

P405 Store locked up.

P501 Dispose of contents and container in accordance with local and national regulations.

2.3 Other Hazards: None**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures**

Chemical Name	CAS Number / EINECS Number / REACH Reg. Number	% (w/w)	EU Classification (67/548/EEC)	CLP/GHS Classification (1272/2008)
Hydrogen Peroxide	7722-84-1 / 231-765-0	<35%	O, C, Xn R5, R8, R35, R20/22	Ox. Liq 1 (H271) Acute Tox. 4 (H302, H332) Skin Corr. 1A (H314) Eye Dam. 1(H318) STOT SE 3 (H335)
Potassium Phosphate	Proprietary	1-5	Xi R36	Eye Irrit 2 (H319)

See Section 16 for full text of GHS and EU Classifications.

SECTION 4: FIRST AID MEASURES**4.1 Description of First Aid Measures****First Aid**

Eye contact: In case of contact with eyes, flush immediately with water for at least 15 minutes while lifting the upper and lower lids. Get immediate medical attention. Symptoms may be delayed.

Skin contact: Immediately remove contaminated clothing. Wash with soap and water. Get immediate medical attention. Launder clothing before reuse. Do not allow liquid to dry on clothing.

Inhalation: Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Symptoms may be delayed.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. If the person is alert, have them rinse their mouth with water and sip one glass of water. Call a poison center or physician for advice. Never give anything by mouth to an unconscious or drowsy person.

See Section 11 for more detailed information on health effects.

4.2 Most Important symptoms and effects, both acute and delayed: Causes severe eye and skin irritation or damage. Inhalation of vapor or mists may cause irritation of the upper respiratory tract. Severe overexposure may result in pulmonary edema. Swallowing may cause distension of the esophagus or stomach with internal bleeding, gastrointestinal disturbances, vomiting and bloating.

4.3 Indication of any immediate medical attention and special treatment needed: If contact occurs, get immediate medical attention.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing Media: Use large amounts of water to extinguish fire. Do not use dry carbon dioxide or halon. Cool fire exposed containers with water.

5.2 Special Hazards Arising from the Substance or Mixture

Unusual Fire and Explosion Hazards: Contain hydrogen peroxide which is a strong oxidizer. If allowed to dry, solid residue may present a fire hazard. Decomposition or heating may pose an explosion hazard if product is not adequately vented.

Combustion Products: Oxides of carbon

5.3 Advice for Fire-Fighters: Self-contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Wear appropriate protective equipment. Avoid direct contact with spilled material. Prevent contact with combustible materials.

6.2 Environmental Precautions:

Prevent entry in storm sewers and waterways. Report spill as required by local and national regulations.

6.3 Methods and Material for Containment and Cleaning Up:

Collect with an inert absorbent material and place in an appropriate container for disposal. Wash spill site with water. Contain large spills and collect as much liquid as possible into containers for use. Dilute remainder with large amounts of water. Do not use combustible materials such as saw dust or paper to absorb spills.

6.4 Reference to Other Sections:

Refer to Section 8 for personal protective equipment and Section 13 for disposal information.

SECTION 7: HANDLING and STORAGE

7.1 Precautions for Safe Handling:

Prevent contact with eyes, skin and clothing. Avoid breathing vapors or mists. Use with adequate ventilation. Do not eat, drink or smoke while using product. Wash thoroughly with soap and water after handling. Keep away from heat, sparks or open flames. Keep away from combustible materials.

7.2 Conditions for Safe Storage, Including any Incompatibilities:

Protect containers from physical damage. Keep from freezing. Keep containers closed. Do not reuse empty container. Empty containers retain product residues. Follow all SDS precautions in handling empty containers. Store away from food and feed. Do not store on wooden pallets or floors.

7.3 Specific end use(s):

Industrial uses: None identified

Professional uses: Soil Amendment

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

Chemical Name	US OEL	EU IOEL	UK OEL	Biological Limit Value
Hydrogen Peroxide	1 ppm TWA ACGIH TLV 1 ppm OSHA PEL	None Established	1 ppm TWA 2 ppm STEL	None Established
Potassium Phosphate	None Established	None Established	None Established	None Established

8.2 Exposure Controls:

Recommended Monitoring Procedures: None established.

Appropriate Engineering Controls: Good outdoor ventilation should be adequate under normal conditions of use. If used indoors, use local exhaust ventilation to maintain exposures below the occupational exposure limits.

Personal Protective Measurers

Eye/face Protection: Chemical goggles recommended to prevent eye contact.

Skin Protection: Impervious clothing is recommended to prevent skin contact.

Hands: Impervious gloves are recommended to prevent skin contact.

Respiratory Protection: None needed under normal use conditions with adequate ventilation. If occupational exposure limits are exceeded an approved full facepiece supplied air respirator can be used. Use respirators in accordance with local and national regulations.

Other protection: Suitable washing facilities should be available in the work area.

SECTION 9: PHYSICAL and CHEMICAL PROPERTIES

9.1 Information on basic Physical and Chemical Properties

Appearance: Clear, colorless liquid

Odor Threshold: Not available

Melting/Freezing Point: -30°C

Flash Point: 116°C (241°F)

Lower Flammability Limit: Not applicable

Upper Flammability Limit: Not applicable

Vapor Density(Air=1): Not applicable

Solubility: Complete

Autoignition Temperature: None

Viscosity: Not applicable

Oxidizing Properties: Hydrogen Peroxide is an oxidizer

Molecular Formula: Mixture

Odor: Slight Pungent odor. .

pH: 0.75

Boiling Point: Not available

Evaporation Rate: Not applicable

Vapor Pressure: 1.97 mmHg @ 20°C (hydrogen peroxide)

Relative Density: 1.09

Octanol/Water Partition Coefficient: Not determined

Decomposition Temperature: 55°C (SADT)

Explosive Properties: None

Specific Gravity (H₂O= 1): 1.09

Molecular Weight: Mixture

9.2 Other Information: None available

SECTION 10: STABILITY and REACTIVITY

10.1 Reactivity: Decomposition of hydrogen peroxide liberates heat and oxygen.

10.2 Chemical Stability: Stable under normal conditions.

10.3 Possibility of Hazardous Reactions: Elevate temperatures can increase the decomposition of the product.

10.4 Conditions to Avoid: Avoid heat, sparks and open flames.

10.5 Incompatible Materials: Incompatible with reducing agents, acids, bases, metals, organic materials and flammable substances.

10.6 Hazardous Decomposition Products: Decomposition may produce heat and oxygen.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:

Potential Health Effects:

Eye Contact: Cause severe irritation with redness, tearing with possible burns. Permanent eye damage may occur.

Skin contact: Skin contact may cause irritation with.

Inhalation: Excessive inhalation may cause upper respiratory tract irritation, coughing, sneezing and difficulty in breathing. Pulmonary edema may occur.

Ingestion: Swallowing may cause burns to the mouth, throat and stomach, distension of the esophagus or stomach with internal bleeding, gastrointestinal disturbances, vomiting and bloating.

Acute toxicity: No acute toxicity data available for the product. Calculated ATE for the mixture: Oral 3172 mg/kg
Hydrogen Peroxide: Oral rat LD50 1026 mg/kg; Inhalation rat LC50 >170 mg/m³/4 hr.; Dermal rabbit LD50 >2000 mg/kg.
Potassium Phosphate: Oral rat LD50 >2980 mg/kg; Dermal rabbit LD50 >7940 mg/kg

Skin corrosion/irritation: Hydrogen peroxide is corrosive to rabbit skin. Potassium Phosphate is not irritating to rabbit skin.

Eye damage/ irritation: At concentrations > 10%, hydrogen peroxide can cause severe irritation or burns and causes irreversible eye damage. Moderate irritations occur at 8% and mild irritation at less than 6%. Potassium phosphate is moderately irritating to rabbit skin.

Respiratory Irritation: No data available. Expected to cause only temporary irritation.

Respiratory Sensitization: No data available.

Skin Sensitization: No data available. Not expected to cause skin sensitization.

Germ Cell Mutagenicity: Hydrogen peroxide was found to be mutagenic in an in-vitro Ames test performed with *S. typhimurium* TA100, whereas it was negative in Ames tests carried out with other *S. typhimurium* strains and with *E. coli* WP2 strain. Hydrogen peroxide was positive in an in vitro chromosomal aberration and in vitro micronucleus test. Hydrogen peroxide was negative in an in vivo mammalian erythrocyte micronucleus test.

Carcinogenicity: No data available. None of the components of this product are listed as carcinogens by IARC or the EU Dangerous Substances Directive.

Reproductive Toxicity: In a 90 day reproductive oral study with mice, hydrogen peroxide showed no effects in the reproductive organs in both males and females mice. It was presumed that the rapid degeneration of hydrogen peroxide on absorption and due to local effects, studies would be unlikely to reveal any specific developmental effects.

Specific Target Organ Toxicity:

Single Exposure: No data available.

Repeat Exposure: Oral administration of hydrogen peroxide in mice showed not adverse effects at 26 mg/kg in male mice and 37 mg/kg in female mice. There is evidence in animal studies that local effects on the lungs and skin can occur at levels of 10 mg/m³. NOAEL 26-37 mg/kg. In a 13 week oral study, kidney damage was noted at high levels in rats.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity: No toxicity data available for the product.

Hydrogen Peroxide: 96 hr LC50 Pimephales promelas 16.4 mg/L; 48 hr EC50 daphnia pulex 2.4 mg/L; 72 hr EC50 Skeletonema costatum 1.38 mg/L

Potassium Phosphate: 96 hr rainbow trout >100 mg/L, 48 hr daphnia magna >100 mg/l

12.2 Persistence and degradability: Hydrogen peroxide rapidly degraded in the environment.

12.3 Bioaccumulative Potential: Hydrogen peroxide is decomposed by enzymatic action and does not accumulate in cell systems.

12.4 Mobility in Soil: In the soil, product follows natural cycle to provide plant nutrients.

12.5 Results of PVT and vPvB assessment: Not required.

12.6 Other Adverse Effects: No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Dispose in accordance with local/ and national regulations. Not considered hazardous waste according to EU regulations.

SECTION 14: TRANSPORTATION INFORMATION

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
US DOT	UN2014	Hydrogen Peroxide, aqueous solution (with not less than 20% but no more than 40%)	5.1 (8)	PG II	No

14.6 Special Precautions for User: None

14.7 Transport in Bulk According to Annex III MARPOL 73/78 and the IBC Code: Not determined.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

US Regulations

CERCLA Section 103: The normal application of fertilizers is exempt from CERCLA reporting. If an accidental release occurs, contact Floratine Products Group for information.

SARA Hazard Category (311/312): Acute Health Hazard

SARA 313: Products used in routine agricultural operations and fertilizers held for resale by retailers is excluded from SARA 313 reporting. Contact Floratine Products Group for additional information.

California Proposition 65: This product contains the following substances known to the State of California to cause cancer and/or reproductive harm (birth defects): None known

Canada:

Canadian WHMIS Classification: Class C; Class E

This MSDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the MSDS contains all of the information required by the CPR.

International Chemical Inventories

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory or exempt.

Canadian Environmental Protection Act: All of the components in this product are listed on the Domestic Substances List (DSL) or exempt.

SECTION 16: OTHER INFORMATION

CLP/GHS Classification and H Phrases for Reference (See Section 3)

Oxid Liq 1 Oxidizing Liquid Category 1
Acute Tox. 4 Acute Toxicity Category 4
Skin Corr. 1A Skin Corrosion Category 1A
Eye Dam 1 Eye Damage Category 1
Eye Irrit 2 Eye Irritation Category 2
STOT SE 3 Specific Target Organ Toxicity Category 3
H271 May cause fire or explosion; strong oxidizer.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.

This safety data sheet provides health and safety information. The product is to be used in applications consistent with best farming practice. Individuals handling this product should be informed under COSHH of the recommended safety precautions and should have access to this information. The product information data sheet is to the best of Floratine's knowledge correct as at the date of publication. Neither Floratine, importer or local supplier accepts liability for any loss or damage resulting from reliance on this information. Further information on this product may be obtained from the supplier whose name, address and telephone number will be found on the product container. The information provided herein is offered solely for your consideration, investigation and verification. This information herein is provided by Floratine in good faith as accurate at the time of writing but without guarantee. This information includes information which has been generated by other parties and provided to Floratine and which Floratine has not independently verified. The information provided herein relates only to the specific product designated and may not be valid if the product is used in combination with any other materials or in any process