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Safety Data Sheet (SDS)

Prepared to GHS Rev 04(2011): U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Directives

SECTION 1: Product & Company Identification

Product Identifier

Trade Name: XT-2000 Orange Oil Plus

Application of the substance/the preparation: EPA-Registered Structural Pesticide

Details of the Safety Data Sheet Supplier

Manufacturer/Supplier: XT-2000, Inc., 10107 Prospect Avenue, Suite B, Santee, CA 92021
www.xt2000.com

866-870-8485 or 619-542-8469 for product information

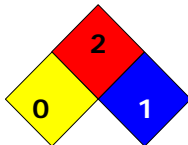
For Spill, Leak or Fire Emergency, call CHEMTREC 800-424-9300, Account #213454

For Medical Emergency, call PROSAR 800-983-4711

SECTION 2: Hazards Identification

1. **GHS Classification of the Substance:** Combustible Liquid, Category 3
Moderate Eye Irritant, Category 2B

Classification System



NFPA ratings (scale 0-4)

Health = 1
Fire = 2
Reactivity = 0

Health	1
Fire	2
Reactivity	0

HMIS Ratings (scale 0-4)

Health = 1
Fire = 2
Reactivity = 0

Other Hazards: Results of PBT and vPvBT – N/A

2. GHS Label Elements

- a. The pictogram is



- b. The signal word is **CAUTION**

c. Hazard Statements

H227: Combustible Liquid

H313: May be harmful in contact with skin.

H317: Prolonged or repeated skin contact may cause an allergic skin reaction in some individuals.

H333: May be harmful if liquid is inhaled.

H335: May cause respiratory irritation of vapors are inhaled for prolonged periods.

d. General Precautionary Statements

P101: If medical advice is needed, have product container, label or SDS available.

P102: Keep out of reach of children,

P103: Read label directions before use

e. Prevention Precautionary Statements

P234: Store only in original container.

P280 Wear protective gloves/protective clothing/eye protection.

f. Response Precautionary Statements

P301: If swallowed, call a poison control center or a doctor immediately for treatment advice. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person.

P302: If on skin, remove any contaminated clothing. Rinse affected area with soap and plenty of water. Call poison control center or doctor for treatment advice.

P304: If inhaled, Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

P305: If in eyes, Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

g. Storage Precautionary Statements

P401: Store in original container in a cool, dry area.

h. Disposal Precautionary Statements

P501: Dispose of wastes resulting from the use of this product onsite or at an approved waste disposal facility.

P502: Do not reuse or refill the original product container. Triple rinse (or equivalent), puncture and offer for recycling or dispose of in a sanitary landfill or by other approved state or local procedures.

Emergency Overview: CAUTION: Possible Eye and Skin Irritant

This product may present a slight hazard to humans as an eye irritant. It can be a skin irritant in case of prolonged exposure to humans or from transient exposure to humans who are sensitive or allergic to the ingredients contained in this product.

Appearance/Odor: Thins, solvent-like, colorless liquid with a citrus odor.

Skin: May cause irritation in sensitive individuals.

Inhalation: May cause respiratory tract irritation. Because this material is not a gas, inhalation is not expected from accidental exposure.

Eye: May cause irritation.

Ingestion: May cause stomach distress.

Target Organs: Skin, eyes, respiratory and digestive system

Signs and Symptoms of Over-exposure: Symptoms of skin overexposure may include itching, redness, edema, temporary dying of skin, and dermatitis. Accidental ingestion may cause stomach distress, nausea, vomiting or diarrhea. Accidental inhalation may cause coughing, labored breathing or other respiratory distress.

SECTION 3: Composition/Information on Ingredients

<u>Component</u>	<u>CAS #</u>	<u>% by Wt.</u>
d-Limonene	138-86-3	95 minimum
Citrus terpenes (Orange)	none assigned	5

SECTION 4: First Aid Measures

Have the product container or label and/or SDS with you when calling a poison control center or doctor or going for treatment.

Description of first aid measures

- **General information:** Immediately remove any clothing soaked with product.
- **After inhalation:** Remove person to fresh air. In case of unconsciousness, stabilize patient for transportation by placing on side position to prevent inhalation of any vomitus. If person is not breathing, call 911. Give artificial respiration by mouth-to-mouth if possible.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Remove contact lenses, if worn when eye contact occurs. Hold eye open and rinse slowly and gently with water for 15-20 minutes. Then consult a doctor.
- **After swallowing:** Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

Note to Physician: Treat symptomatically.

SECTION 5: Fire Fighting Measures

Flammability Classification (29 CFR 1910.1200): Class II Combustible Liquid

General Hazard: Fire hazard.

Extinguishing Media: Carbon dioxide, foam or dry chemical. **Caution:** Carbon dioxide will displace air in confined spaces and may create an oxygen deficient atmosphere. Water is an unsuitable extinguishing agent.

SECTION 6: Accidental Release Measures

General: Keep unnecessary personnel away from large spill or leak. Do not touch or walk through spilled material without equipment specified in Sections 7 and 8. Do not handle spilled material unless wearing appropriate protective gloves and clothing.

Land Spills: Absorb spills with non-reactive absorbent and place in suitable covered and labeled containers. Prevent large spills from entering sewers or waterways. Contact emergency services for advice on handling and disposal of large spills.

Water Spills: This product may cause localized contamination of surrounding waters if runoff is not preventable and quantity of spill is large. Spill in local waterways may cause damage to fish and other aquatic life. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge.

SECTION 7: Handling and Storage

Storage: Product is packaged in plastic containers in temperature-controlled environment at less than 100°F. Prolonged storage at elevated temperatures above 110°F should be avoided but should not cause performance loss or present any specific hazard. Store containers upright and closed. Do not store where children or animals may gain access.

Handling: No special precautions are needed. Wear rubber gloves/protective clothing/eye protection when cleaning up spills. Absorb small spills (less than a gallon or 2) with rags. Since soaked rags may spontaneously combust, place in appropriate disposal container. Dike large spills (5 gallons or more) to prevent runoff. Absorb with dirt or suitable inert absorbent and dispose in closed containers.

Other Precautions: None special

SECTION 8: Exposure Controls/Personal Protection

General Protective and Hygiene Measures: Wear protective gloves/protective clothing/eye protection/face protection. Wash hands during breaks and at the end of handling the material. Immediately remove any contaminated clothing

Application Measures: Apply as directed on product label.

Eye and Face Protection: Safety glasses with side-shields or goggles

Hand Protection: Wear protective gloves

Respiratory Protection: No respiratory protection required when used according to label directions. Very large spills (larger than 5 gallons) that occur in a closed environment at high ambient temperatures would not pose any specific hazard.

Occupational Exposure Limits: Not applicable.

SECTION 9: Physical and Chemical Properties

Form: Liquid

Color: Colorless

Odor: Citrus

Odor Threshold: Not determined

pH at 20°C (68°F): 4.5-5.0

Change in Condition

Boiling Point: 349°F (176°C)

Melting Point: -140°F (-96°C). Thickens at -180°F (-78°C)

Flash Point: 115°F (46°C)

Flammability: Combustible

Ignition Temperature

Decomposition Temperature: Not determined.

Auto Ignition Temperature: 458°F (237°C)

Danger of Explosion: Product does not present an explosion hazard.

Explosion Limits

Lower: N/A

Upper: N/A

Specific Gravity: 0.840 to 0.850 @ 77°F (25°C)

Vapor Pressure at 20°C (68°F): less than 2 mm Hg

Density at 20°C (68°F): Not determined.

Relative Density: 0.842

Vapor Density: 4.70

Evaporation Rate: 0.2 (BuAc=1)

Solubility in Water: Insoluble

Partition Coefficient (n-Octanol/Water): Not determined

Viscosity

Dynamic: Not determined

Kinematic: Not determined

Solvent Content

Organic Solvents: greater than 99.5%

Water: less than 0.1%

Solids Content: Less than 0.1%

SECTION 10: Stability and Reactivity

Reactivity: No unusual reactivity

Stability: Stable under normal conditions

Possibility of Hazardous Reactions: No hazardous reactions known

Conditions to Avoid: No specific conditions to avoid

Incompatible Materials: Oxidizing agents and bases

Hazardous Decomposition Products: When combusted, emits toxic fumes

SECTION 11: Toxicological Information

Ingestion (Acute Oral Toxicity): LD₅₀>5 g/kg

Skin (Acute Dermal Toxicity): LD₅₀>5 g/kg. Irritant for skin and mucous membranes

Primary Skin Irritation Index: Moderate in guinea pigs; low in rabbits

Eye: Irritant

Inhalation: May cause irritation of nose, throat and respiratory tract

Carcinogenicity: Not classified as a carcinogen by OSHA, IARC, ACGIH or NTP.

Reproductive Toxicity: Does not contain known reproductive toxins.

Developmental Toxicity: Does not contain known developmental toxins.

Other: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH

SECTION 12: Ecological Information

Ecotoxicity

Plants: Not available

Fish: LC₅₀(Rainbow trout, 94 hour) = 35.00mg/L. LC₅₀ (Fathead minnow, 96 hour) = 0.61-0.79mg/L.
EC₅₀ (Daphnia pulex, 48 hour) = 69.60mg/L

Persistence/Degradation: Expected to be readily biodegradable.

Soil Mobility: Orange terpenes volatilize rapidly.

SECTION 13: Disposal Considerations

Do not contaminate water, food or feed by storage or disposal.

Storage: Store containers in a cool, dry place (less than 110°F). Do not store near heat or open flame.

Product Disposal: Wastes from the use of this product may be disposed of on site or at an approved waste facility.

Container Disposal: Plastic container: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill. May be incinerated if allowed by state and local authorities or by burning. If burned, avoid exposure to smoke.

SECTION 14: Transportation Information

US DOT Shipping Classification: (49CFR 172.101): Consumer Commodity

DOT Hazardous Substances Classification: (49CFR 172.101): ORM-D

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Hazard Class(es)	14.4 Packing Group	14.5 Environmental Hazards
US DOT	UN2319	Terpene Hydrocarbon, n.o.s. Liquids with a flash point of 100°F or greater can be classified as combustible liquids for ground transport. See 49CFR173.150-(f)	3	III	No
Canadian TDG	UN2319	Terpene hydrocarbon, n.o.s. Liquids with a flash point of 100°F or higher in small means of containment are not regulated. See 1.33.	3	III	No
EU	UN2319	Terpene hydrocarbon, n.o.s.	3	III	Yes
ADR/RID					
IMDG	UN2319	Terpene Hydrocarbon, n.o.s.	3	III	Marine Pollutant
IATA/ICAO	UN2319	Terpene Hydrocarbon, n.o.s.	3	III	No

SECTION 15: Regulatory Information

EPA Registration Number: 71986-2

USFDA: Listed as GRAS in 21 CFR Section 182.20 and 182.60

EPA TCSA Inventory: All components are listed on the TSCA inventory.

Stability: Stable.

Conditions to Avoid: Keep away from heat, sparks and open flame.

Incompatible Materials: Strong oxidizing agents and strong acids, including acidic clays, peroxides, halogens, vinyl chloride and iodine pentafluoride.

Hazardous Decomposition Products: Oxides of orange terpenes, which can result from improper storage and handling, are known to cause skin sensitization.

Possibility of Hazardous Reactions: To prevent oxidation, avoid long-term exposure to air. If storing partially filled containers, fill headspace with an inert gas such as nitrogen or carbon dioxide.

SECTION 16: Other Information

d-Limonene is the major component of orange terpenes. It is a by-product of citrus fruit and entirely of natural origin. It does NOT contain lead, cadmium, mercury or hexavalent chromium or come in contact with these chemicals. It is a citrus-derived essential oil produced by steam/vacuum distillation.

d-Limonene is packaged in containers that do NOT contain lead, cadmium, mercury, or hexavalent chromium. d-Limonene does NOT contain and is NOT manufactured with any of the Class I or II ozone-depleting substances listed under the United States Clean Air Act of 1990.

Date of Preparation: August 4, 2014

PACKAGING: XT-2000 Orange Oil Plus is packaged in one gallon fluorinated polyethylene containers.

Disclaimer of Liability

The information contained herein is, to the best of the originator or manufacturer's current knowledge and belief and is accurate and reliable as of the date of preparation of this document. This product is an EPA-registered product intended for use by trained and licensed pesticide applicators. The purpose of this SDS is to provide information to manufacturing, warehouse transport and emergency response personnel concerned with the packaging, handling, shipping, storing or cleanup of relatively large spilled quantities of this product. Alteration of its composition or characteristics by concentration, evaporation, mixing with other substances, or other misuse is prohibited by federal law and may present hazards not specifically addressed herein which are beyond the control of the manufacturer or distributor and are disavowed. Upon shipment of this product from manufacturer's facility, manufacturer shall not be liable for any damage or injury resulting from accidental discharge, abnormal storage conditions, or from any hazards resulting from unsafe or unlawful practices.

These data are offered in good faith as typical values and not as product specifications. No warranty, either express or implied, is hereby made. The data and recommended industrial hygiene and safe handling procedures are believed to be generally applicable and are obtained from available scientific and safety sources. This product should be transported and stored following precautions declared on this SDS. This SDS is to be used only for this product. Upon shipment of this product from manufacturer's warehouse utilizing transport not owned or operated by manufacturer, the conditions of handling, storage, use and disposal of this product are beyond control of manufacturer and may be beyond manufacturer's knowledge. For this and other reasons, manufacturer assumes no responsibility and expressly disclaims liability for loss, damage or expense arising out of, or in any way connected with, handling, storage, use or disposal of the product.

Abbreviations

ACIGH – American Conference of Governmental Industrial Hygienists

AIHA – American Industrial Hygiene Association

IATA/CAO – International Air transport Association/Civil Aviation Organization

ADR – European agreement concerning the international transport of dangerous goods

Canadian TDG – Canadian Transport of Dangerous Goods
DOT – United States Department of Transportation
EPA – United States Environmental Protection Agency
EU – European Union
GHS – Globally Harmonized System
GRAS – Generally Recognized as Safe
HCS – Hazard Communication Standard
HMIS – Hazardous Materials Information System
IARC – International Agency for Research on Cancer
IMDG – International Maritime Transport of Dangerous Goods
SDS – Safety Data Sheet (formerly Material Safety Data Sheet)
MSHA – United States Mine Safety and Health Administration
FIFRA – Federal Insecticide, Fungicide, Rodenticide Act
NIOSH – National Institute for Occupational Safety and Health
NFPA – National Fire Protection Association
NTP – National Toxicology Program
OSHA – United States Occupational Health and Safety Administration
PEL – Permissible Exposure Limit
RID – Regulations concerning the international railway transport of dangerous goods
TSCA – Toxic Substances Control Act
PBT Assessment– Persistent Bioaccumulative Toxic Assessment
USFDA – United States Food and Drug Administration
vPvBT Assessment – Very Persistent Very Bioaccumulative Toxic Assessment