SAFETY DATA SHEET - SDS

Product: OXITIVE 7210 **Review: 00** **Date: January 24th, 2019**

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product: OXITIVE 7210

Internal identification code: –

Relevant recommended uses: Industrial uses.

Company: OXITENO USA, LLC

Address: 9801 Bay Area Blvd
PASADENA, TX
77507

Phone number: (281) 909-7600

Fax: (630) 364-5120

Emergency Phone number: For Chemical Emergency - Spill, Leak, Fire, Exposure or Accident:
Call CHEMTREC Day or Night 800-424-9300 (Domestic North America)
International, Call +1 703-527-3887 (collect calls accepted).

2. HAZARDS IDENTIFICATION

Classification: Acute toxicity – Oral, Category 5
Hazardous to the aquatic environment – acute, Category 2

Label Elements:

- **Hazard Pictograms:** Not applicable.

- **Signal Word:** WARNING

- **Hazard Statements:** H303 May be harmful if swallowed.
H401 Toxic to aquatic life.

- **Precautionary Statements:** P273 Avoid release to the environment.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P501 Dispose of contents / container in accordance with current legislation.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Product Type: Substance.

Synonyms: Alcohol, C12-16, ethoxylated propoxylated.

CAS Number: 68213-24-1.

Impurities which contribute to the classification of the substance: There are no impurities which contribute to the classification of the substance.

4. FIRST-AID MEASURES

Procedure in Case of:

- **Ingestion:** Seek prompt medical attention. Do not induce vomiting. Vomiting should only be induced by medical personnel. If vomiting occurs, keep the head lower than chest to avoid aspiration into the lungs. Never give anything by mouth to an unconscious or convulsing person.

- **Inhalation:** Seek prompt medical attention. Remove victim to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.

- **Skin contact:** Remove contaminated clothing and shoes. Wash affected areas with plenty of running water, preferably under a shower. Seek prompt medical attention.

- **Eye contact:** Immediately flush with plenty of running water for at least 15 minutes, keeping eyelids open. Remove contact lenses if easy to do. Seek prompt medical attention.

Most important symptoms/effects, acute and delayed:
ıngestion – Toxic effects are not expected due to significant acute toxic ingestion of small amounts of this product. In large amounts may cause gastrointestinal irritation.
Inhalation – Due to your low vapor pressure, is unlikely to cause inhalation problems at room temperature.
Skin – May cause slight irritation.
Eyes – May cause eye irritation.

Information for doctor: There is not known any specific antidote. Direct the treatment in accordance with the symptoms and clinical conditions of the patient.

5. FIRE-FIGHTING MEASURES

Extinguishing Media: In case of fire, use: water spray, alcohol resistant foam, dry chemical powder and carbon dioxide (CO2).

Specific Hazards: Product is not flammable. In case of combustion, it may generate carbon monoxide, besides CO2.

Protective measures for fire fighters: Water jets should not be used directly on igniting products because it may disperse the material and intensify the fire. Self-contained breathing apparatus and protective clothing are required. Cool the intact fire-exposed containers with water spray and remove them.

NFPA Rating:

- **Health:** 0

- **Flammability:** 1

- **Instability:** 0

- **Special:**

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Isolate and signalize area. Keep heat and/or ignition sources away. Use personal protection equipment as indicated in Section 8, in order to avoid contact with spilled product.

Environmental Precautions: Prevent product from entering into soil and waterways. Notify the competent authorities if the product has run into drainage systems or watercourse or has contaminated the ground or vegetation.

Methods and materials for containment and cleaning up: Stop if possible. Contain and dike spilled product with earth or sand. Eliminate ignition or heat sources. Transfer to proper container. Collect remnants with an appropriate absorbent material. Wash the contaminated surface with water, which should be collected for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling: Use in a well-ventilated area. Avoid inhalation and contact with eyes, skin or clothing through proper protection. If occurs accidental contact, exposed area should be washed immediately. Emergency eyewashes and showers shall be located in accessible locations. Wash hands and face thoroughly after handling. Wash contaminated clothing before reuse.

Conditions for safe storage: Store in a covered and well-ventilated area, away from sunlight and sources of heat or open flames. Ensure that the storage location has adequate moisture, pressure and temperature. Keep containers tightly closed when not in use.

Incompatibilities: Avoid contact with oxidizing materials.

Packaging Material: Recommended: Stainless steel. Coated carbon steel with: Vinyl ester resin.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters:

- **TLV-TWA (ACGIH):** 1,4-Dioxane: 20 ppm; 72 mg/m³ [Skin][A3].
  Ethylene oxide: 1 ppm; 1.8 mg/m³ [A2].
  Propylene oxide: 2 ppm; 4.8 mg/m³ [DSEN][A3].
  A2 - Suspected Human Carcinogen.
  A3 - Confirmed animal carcinogen with unknown relevance to humans.
  Skin - Danger of cutaneous absorption.

- **PEL-TWA (OSHA):** 1,4-Dioxane: 100 ppm; 360 mg/m³ [Skin].
  Ethylene oxide: 1 ppm;
  Propylene oxide: 100 ppm; 240 mg/m³.
  Skin - Danger of cutaneous absorption.

- **TLV-STEL (ACGIH):** Not established.

- **LT (NR15):** Ethylene oxide: 39 ppm; 70 mg/m³.

- **Odor Threshold:** Not available.

- **IDLH:** 1,4-Dioxane: 500 ppm.
  Ethylene oxide: 800 ppm.
  Propylene oxide: 400 ppm.

- **Biological Exposure Indices (ACGIH):** Not established.

Engineering Control Measures: In closed environments, this product should be handled keeping proper exhaust (general diluter or local exhauster).

Individual Protection Measures:

- **Eye Protection:** Side shields or wide vision safety goggles.
- **Skin Protection:** PVC apron. It is recommended to adopt safety boots/shoes.
- **Hand protection:** Gloves made of: Rubber, PVC (Polyvinyl chloride).
- **Breathing equipment:** In case of emergency or contact with high concentrations of the product, wear an air supplied mask or self-contained breathing apparatus. It is recommended to wear face mask with organic vapors cartridge in case of exposure to vapors/aerosols.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid.

Odour and Odour threshold: Not available.

pH: 6 - 8 (sol. 1%, 25 ºC).

Melting point/Freezing point: Not available.

Initial Boiling Point and Boiling Range: Not available.

Flash point: ca. 221 ºC (open glass).

Evaporation rate: Not available.

Flammability (solid, gas): Not applicable.

Upper/lower flammability or explosive limits: Not available.

Vapour pressure: Not available.

Vapour density (air = 1): > 1.

Relative density (water=1): ca. 0.97 g/cm³ (25 °C).

Apparent density: Not applicable.

Solubility: Soluble in water (20 °C for 1 hour, concentration of 0.5%).

Partition Coefficient n-octanol/water: Not available.

Auto-ignition temperature: Not available.

Decomposition temperature: 378 ºC.

Viscosity: 49 cP (25 °C).

10. STABILITY AND REACTIVITY

Chemical stability: Stable under normal conditions of use and storage.

Reactivity: No hazardous reactivity is expected.

Possibility of Hazardous Reactions: Not polymerize.

Conditions to avoid: High temperatures, ignition sources and prolonged exposure to the air.

Incompatible materials: Avoid contact with oxidizing materials.

Hazardous decomposition products: In case of combustion, it may generate carbon monoxide, besides CO2.

Considerations on the use of the product: Not applicable.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

- **Oral:** LD50, rat: 3530 mg/kg.
- **Inhalation:** Not available.
- **Dermal:** LD50, rat: > 5000 mg/kg.

Skin corrosion/irritation: Mild to non-irritant.

Serious eye damage/eye irritation: Mild to non-irritant.

Respiratory or skin sensitization: Not sensitizing to the skin in guinea pig.

Germ cell mutagenicity: Negative for Ames test.

Carcinogenicity: There is no known carcinogenic activity.

Reproductive toxicity: Not available.

Specific target organ toxicity – Single exposure: Not available.

Specific target organ toxicity - Repeated exposure: Not available.

Aspiration hazard: Not available.

12. ECOLOGICAL INFORMATION

Ecotoxicity:
Fish -
LC50, 96h, Pimephales promelas: > 1 - 10 mg/L.

Persistence and Degradability: > 60% after 28 days. Expected to be biodegradable.

Bioaccumulative Potential: Not available.

Mobility in soil: Not available.

Other Adverse Effects: Not available.

13. DISPOSAL CONSIDERATIONS

Recommended methods of disposal:

• **Product:** The preferred options for disposal include reuse, recycling, co-processing, finding a use for a by-product incineration or other thermal destruction process at licensed facilities. All procedures must follow specific operation standards in order to reduce health, safety and environmental risks. Perform co-processing, incineration or other thermal destruction process at facilities capable of minimizing or reducing air pollution emissions.
The disposal must comply with federal, state, and local laws and regulations in accordance with the environmental agencies.

• **Product Remains:** Same method as indicated for product.

• **Packaging:** Do not cut or pierce the packaging, nor do hot work near them. Do not remove labels until the product has been fully removed and the packaging cleaned. The preferred options for disposal include reuse, recycling or reclamation at licensed facilities. All procedures must follow specific operation standards in order to reduce health, safety and environmental risks. The disposal must comply with local legislation and in accordance with standards from local environmental agencies.

14. TRANSPORT INFORMATION

Land Transport ANTT: Product not classified as hazardous in accordance with Resolution 5232/2016 - Transport Ministry.

- **UN number:** N/A
- **Proper Shipping Name:** Not classified.
- **Hazard Class:** Not classified.
- **Hazard Number:** Not classified.
- **Packaging Group:** Not classified.

Maritime Transport IMDG: Product not classified as hazardous in accordance with IMDG Code - 2016 Edition – IMO (International Maritime Organization).

- **UN number:** N/A
- **Proper Shipping Name:** Not classified.
- **IMDG Class:** Not classified.
- **Packaging Group:** Not classified.
- **EmS:** Not classified.

Air Transport ICAO-TI and IATA-DGR: Product not classified as hazardous in accordance with Dangerous Goods Regulations - 57th Edition - IATA (International Air Transport Association).

- **UN number:** N/A
- **Proper Shipping Name:** Not classified.
- **ICAO/IATA Class:** Not classified.
- **Label:** Not classified.

- **Packaging Group:** Not classified.

Land Transportation U.S DOT: Product not classified as hazardous in accordance with U.S. DOT (United States Department of Transportation) - 49 CFR 172.101.

- **Packaging Type:** Bulk and Non-bulk
- **Proper Shipping Name:** Not classified.
- **Hazard Class or Division:** Not classified.
- **ID Number:** Not classified.
- **Packaging Group:** Not classified.
- **Remarks:** Not classified.

15. REGULATORY INFORMATION

Applicable Standards:
Resolution 5232/2016 – Transport Ministry.
IMDG Code - 2016 Edition - IMO (International Maritime Organization).
Dangerous Goods Regulations – 57th Edition - IATA (International Air Transport Association).
U.S.A Department of Transportation – DOT – 49 CFR 172.101.
OSHA - Occupational Safety & Health Administration – U.S. Department of Labor Equistar Chemical, LP, Houston TX (EUA).

OSHA Hazard Communication Standard: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SARA Title III - Sections 311 / 312 (40 CFR 370 Subparts B and C):
Immediate (Acute) Health Hazard: Yes.
Delayed (Chronic) Health Hazard: No.
Fire Hazard: No.
Sudden Release of Pressure Hazard: No.
Reactive Hazard: No.

SARA Title III - Section 313 (40 CFR 372.65): This product does not contain a chemical which is listed in Section 313 at or above de minimis concentrations.

SARA Title III - Section 302 (40 CFR 355 Appendix A): Ethylene oxide (CAS 75-21-8): máx. 1 ppm. TPQ: 1000 lbs.
Propylene oxide (CAS 75-56-9): máx. 10 ppm. TPQ: 10000 lbs.

CERCLA (40 CFR 302.4) / SARA 304
1,4-Dioxane (CAS 123-91-1): máx. 1000 ppm. RQ: 100 lbs.
Ethylene oxide (CAS 75-21-8): máx. 1 ppm. RQ: 10 lbs.
Propylene oxide (CAS 75-56-9): máx. 10 ppm. RQ: 100 lbs.
Reportable Quantity (RQ) of this product is 100 000 pounds based upon 1,4-Dioxane which yielded the lowest resultant RQ according to the following formula: CERCLA ingredient RQ/ % of that ingredient in the product.

New Jersey Hazardous Substance List
1,4-Dioxane (CAS 123-91-1): Substance# 0789 (Special Health Hazard Code: CA – Carcinogen; F3 – Flammable 3rd degree).
Ethylene oxide (CAS 75-21-8): Substance# 0882 (Special Health Hazard Code: CA – Carcinogen; MU – Mutagen; TE – Teratogen; F4 – Flammable 4th degree; R3 – Reactive 3rd degree).
Propylene oxide (CAS 75-56-9): Substance# 1615 (Special Health Hazard Code: CA – Carcinogen; MU – Mutagen; F4 – Flammable 4th degree; R2 – Reactive 2nd degree).

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act)

WARNING! This product contains a chemical known to the State of California to cause cancer.
- 1,4-Dioxane.
- Ethylene oxide.
- Propylene oxide

WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.
- Ethylene oxide.

Pennsylvania Hazardous Substance List

1,4-Dioxane (CAS 123-91-1), Ethylene oxide (CAS 75-21-8) and Propylene oxide (CAS 75-56-9): Listed also as an environmental hazard and as a special hazardous substance.

Inventory Status

United States & Puerto Rico – Toxic Substances Control Act (TSCA) Inventory: Yes
Canada – Domestic Substances List (DSL): Yes
Canada – Non-Domestic Substances List (NDSL): No
Europe – European Inventory of Existing Commercial Chemical Substances (EINECS): No
Europe – European List of Notified Chemical Substances (ELINCS): No
Australia – Australian Inventory of Chemical Substances (AICS): Yes
Philippines – Philippine Inventory of Chemicals and Chemical Substances (PICCS): No
Japan – Inventory of Existing and New Chemical Substances (ENCS): No
Korea – Existing Chemicals List (ECL): Yes
China – Inventory of Existing Chemical Substances in China (IECSC): Yes
New Zealand – New Zealand Inventory: No
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

16. OTHER INFORMATION

Remarks: Not available.

Sources:

2016 TLVs and BEIs – Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices – ACGIH.
2016 Guide to Occupational Exposure Values – ACGIH.
eChemPortal - The Global Portal to Information on Chemical Substances.
LOLI - ChemADVISOR's Regulatory Database.
ExPub - Expert Publishing Database.

Abbreviations and acronyms:

ACGIH: American Conference of Governmental Industrial Hygienists (USA).
ADR: European agreement concerning the international carriage of dangerous goods by road.
CAS: Chemical Abstracts Service (American Chemical Society - EUA).
EC50: Average concentration for 50% of maximum response.
LC: Lethal Concentration - substance concentration in the environment that leads to death after a certain period of exposure.
LC50: Lethal concentration for 50% of the test animals.
BOD: Biochemical Oxygen Demand.
LD50: Lethal Dose for 50% of the test animals.
LDLo: Lethal Dose Low - minimal amount of a chemical lethal to animals in testing.
EINECS: European Inventory of Existing Commercial Chemical Substances.
GHS: Globally Harmonized System of Classification and Labelling of Chemicals.
IARC: International Agency for Research on Cancer.
IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods by Regulations by the IATA
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the ICAO.
IMDG: International Maritime Code for Dangerous Goods.
IDLH - Immediately Dangerous To Life or Health Concentrations.
Kow: Octanol/water partition coefficient.
LT (NR 15): Exposure limits of the standard number 15 - Unhealthy Operations and Activities from the Ministry of Labour and Employment of Brazil.
LOAEL: Lowest Adverse Effect Level
LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database
NLP: No Longer Polymers.
NIOSH: National Institute for Occupational Safety and Health.
NOAEL: No Observed Adverse Effect Level
NTP: National Toxicology Program.
OSHA: Occupational Safety and Health Administration (EUA).
PEL-TWA: Exposure Limit Allowed – time-weighted average.
RID: Regulations concerning the international transport of dangerous goods by rail.
TLV-STEL: Tolerance Limit - short period of time (15 minutes, maximum).
TLV-TWA: Tolerance Limit – time weighted average.
WGK: Wassergefährdungsklasse (Germany) - Water Hazard Class.

This Safety Data Sheet was authoring according to our current knowledge and experience, however cannot imply guarantee of any nature. Considering the variety of factors that can affect their process or application, the information on this sheet does not exempt the processors from the responsibility of executing their own tests and experiments.