



MATERIAL SAFETY DATA SHEET

OPTISOLV® OP7432

NEWLY DEVELOPED PRODUCT

ENV
Score
49

COMPANY NAME AND ADDRESS:

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NFPA Rating: H=1, F=0, R=0**www.kyzen.com****(24 HOUR) EMERGENCY PHONE:** CHEMTREC (800) 424-9300**EFFECTIVE:** April 16, 2002**SUPERSEDES:** March 27, 2002**INGREDIENTS:**Regulatory Information

All ingredients used in OPTISOLV® OP7432 are TSCA listed.

None of the ingredients are regulated under Section 313 of Title III of SARA of 1986 and 40 CFR 372.65.

None of the ingredients are regulated as a hazardous substance per 40 CFR 302 and 40 CFR 372.45.

Material or Component	OSHA PEL	ACGIH TLV	Approx. %
Tris(hydroxyethyl) amine	None established	5 mg/m ³	1 – 5 %
Chelating agent	None established	None established	3 – 8 %

No other ingredients identified by OSHA as hazardous are known to be present, or the ingredients present are below levels specified as hazardous by OSHA (29 CFR 1910.1200).

PHYSICAL DATA:

NOTE: The physical property data listed below are based on a limited sample size of production lots. As the number of production lots and our sample size increase, the specific physical property ranges listed below may be adjusted.

Boiling Point	> 98°C	pH (10% Solution)	6.6 – 8.6
Vapor Pressure (Calculated)	Not determined	pH (100% Solution)	6.7 – 8.7
Vapor Density (Calculated)	Not determined	Appearance	Clear straw liquid
Solubility in Water	Complete	Odor	Mild

FIRE AND EXPLOSION HAZARD DATA:

Flash Point (COC)	None to boiling	Flammable Limits in Air	None established
Extinguisher Media	Water spray, dry chemical, carbon dioxide, and/or foam.		
Special Fire Fighting Procedures	Fire fighter should have eye protection and wear self contained breathing apparatus and protective clothing.		
Unusual Fire and Explosion Hazards	Vapors are heavier than air and may travel to a source of ignition and flash back.		

PHYSICAL HAZARDS / REACTIVITY DATA:

Stability	Stable	Conditions to Avoid	High temperatures
Incompatibility	Strong acids and oxidizers	Hazardous Polymerization	Will not occur
Hazardous Decomposition	Combustion produces unidentified organics, oxides of carbon, carbon dioxide, carbon monoxide, ammonia, and nitrogen oxides.		
Other	Do not add nitrates due to possible formation of nitrosoamines.		

SPECIAL PRECAUTIONS FOR SAFE HANDLING AND USE:

Handling and Storage	Store in cool (60-80°F), ventilated area, out of direct sunlight, away from ignition sources. Keep containers tightly closed.
Other Precautions	Avoid strong acids and oxidizers. No smoking or eating in handling areas.
Material Release or Spill	Pick up spill on absorbent, non-combustible material. Wipe area with water to remove last traces. Prevent wash water from entering natural waterways or public water supplies.
Disposal of Material	Consult your local, federal, state, county, or city regulations on proper methods of disposal.

HEALTH HAZARD DATA:

Route of Entry Inhalation: Yes Skin: Yes Ingestion: Yes

Health Hazards (Acute and Subchronic)

No data available.

Health Hazards (Chronic)Tris(hydroxyethyl) amine

The administration of this material at levels of 1% and 2% in drinking water to 50 male and 50 female mice for 82 weeks produced no dose-related increase in the incidence of tumors in either sex nor did it affect survival rates, organ weights, or the occurrence of neoplasms as compared to the control group.

Chemical Ingredients Listed as a Carcinogen or Potential Carcinogen

National Toxicology Program: No

IARC Monographs: No

OSHA Regulated: No

Signs and Symptoms of Exposure

May cause eye and skin irritation. Ingestion may cause gastrointestinal irritation. May be harmful if swallowed in large quantities. Inhalation of mists may cause respiratory tract irritation.

Emergency and First Aid Procedures for Overexposure

Inhalation	Remove person to fresh air. If necessary, restore and support breathing. If breathing is difficult, give oxygen. Get immediate medical attention.
Eyes	Immediately flush with water for 15 minutes while lifting eyelids and rolling eyes. Get immediate medical attention.
Skin	Wash promptly with soap and water. May dry out skin. Get medical attention if irritation occurs. Remove contaminated clothing. Launder clothing before reuse.
Ingestion	Get immediate medical attention. If conscious and medical help is not readily available, give 1 to 2 glasses of water and keep at rest. Never attempt to give anything by mouth to an unconscious person. Induce vomiting only at the advice of a physician

SPECIAL PROTECTION AND CONTROL MEASURES:

Respiratory Protection	Under normal ventilated use conditions, personal respiratory protection is typically not required. If misting or vapors occur, use NIOSH approved organic vapor air purifying respirator.
Ventilation	Provide general or local exhaust ventilation for areas of use.
Protective Gloves	Use chemical resistant gloves.
Eye Protection	Chemical goggles, safety glasses, or face shield should be worn when handling this material. Contact lenses should not be worn when handling this material.
Other Protective Equipment	Eye fountain and/or safety shower should be readily available. Long sleeves, aprons, or other personal clothing protection is suggested to avoid skin exposure.
Work Hygiene Practices	In case of skin contact, rinse with water as soon as possible. Do not eat, drink, or smoke when handling this material.

Note: Personal protection information given is based upon the general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

The data contained herein is based on information currently available to Kyzen Corporation and is believed to be factual. As a formulator, blender, and compounder, Kyzen Corporation does not manufacture the raw materials used in this product and correspondingly relies on information provided to Kyzen Corporation from material safety data sheets on the specific raw materials in the construction of this material safety data sheet. Such information is to the best of Kyzen Corporation's knowledge and belief to be accurate and reliable as of the date of this MSDS. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO THE ACCURACY, RELIABILITY, OR COMPLETENESS. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular application. This information is not intended to be all-inclusive as to the manner and conditions of use, handling and storage. Other factors may involve other or additional safety or performance considerations. This data is not to be taken as a warranty or representation of which Kyzen Corporation assumes legal responsibility.

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