

MATERIAL SAFETY DATA SHEET



Conforms to 93/112/EC and ISO 11014-1

1. Chemical Product and Company Identification

Product Name: Oxosol 306 Oxidizer

Product Number: LS-231

**Chemical Names/
Description:**

Xylene and scintillators.

Manufacturer

National Diagnostics
305 Patton Drive
Atlanta, GA 30336

Telephone Numbers

(800) 526-3867
(404) 699-2121

Emergency Numbers

Chemtrec

(800) 424-9300 (U.S. & Canada)
01-703-527-3887 (outside U.S. & Canada)

2. Composition/Information on Ingredients

Component	% Comp.	CAS #	EINECS #	TLV (Units)
Xylene	99-100	1330-20-7	215-535-7	100 ppm

EEC LABEL SYMBOL AND CLASSIFICATION



R: 10-20/21-38

Flammable. Harmful by inhalation and in contact with skin. Irritating to the skin.

S: (2-) 25

Keep out of the reach of children. Avoid contact with the eyes.

3. Hazards Identification

Appearance and Odor

Clear colorless liquid with a slight aromatic hydrocarbon odor.

EMERGENCY OVERVIEW - IMMEDIATE HAZARD

DANGER! HARMFUL OR FATAL IF SWALLOWED. VAPOR HARMFUL. AFFECTS CENTRAL NERVOUS SYSTEM. CAUSES SEVERE EYE IRRITATION. CAUSES IRRITATION TO SKIN AND RESPIRATORY TRACT. MAY BE HARMFUL IF ABSORBED

THROUGH SKIN. FLAMMABLE LIQUID AND VAPOR.

EMERGENCY OVERVIEW - CHRONIC HAZARD WARNING:

ACUTE OR CHRONIC OVEREXPOSURE TO THIS MATERIAL OR ITS COMPONENTS MAY CAUSE SYSTEMIC TOXICITY INCLUDING ADVERSE EFFECTS TO THE FOLLOWING: KIDNEY, LIVER, BRAIN, BLOOD, SPLEEN, TESTES, FETUS AND CENTRAL NERVOUS SYSTEM.

Potential Health Effects

Inhalation

Inhalation of vapors may be irritating to the nose and throat. High vapor concentrations are anesthetic and central nervous system depressants.

Ingestion

May cause irritation of the mouth, throat, and gastrointestinal tract. Aspiration into lungs may cause chemical pneumonia and lung damage.

Skin

Skin contact results in loss of natural oils and often results in a characteristic dermatitis. May be absorbed through the skin.

Eyes

Vapors cause eye irritation. Splashes cause severe irritation, possible corneal burns and eye damage.

Signs and Symptoms of Overexposure

Inhalation

Inhalation of high concentrations may result in nausea, vomiting, headache, ringing in the ears, and severe breathing difficulties which may be delayed in onset. Substernal pain, cough, and hoarseness are also reported. Symptoms of central nervous system depression or effects which may occur can include headache, excitation, euphoria, dizziness, incoordination, drowsiness, light-headedness, blurred vision, fatigue, tremors, convulsions, loss of consciousness, coma, respiratory arrest and death, depending on the concentration and duration of exposure.

Ingestion

Salivation, pain, nausea, vomiting and diarrhea. Exposure may also cause central nervous system symptoms similar to those listed under Inhalation.

Skin

Reddening, itching, and inflammation. Repeated or prolonged contact may result in drying, reddening, itching, pain, inflammation, cracking and possible secondary infection with tissue damage.

Eyes

Pain, tears, burns, sensitivity to light, swelling and possible corneal damage. Prolonged or repeated exposure may cause irritation and conjunctivitis.

Carcinogenicity

IARC has determined that there is inadequate evidence to assign the carcinogenicity of xylene in humans and in experimental animals (IARC Class 3).

Mutagenicity

Has been shown to be positive in mutagenicity assays.

Reproductive Toxicity

May cause adverse reproductive and/or developmental effects. Pregnant women may be at an increased risk from exposure. Consumption of alcoholic beverages may enhance toxic effects.

Teratogenic Effects

May cause teratogenic effects.

Routes of Entry

Inhalation, ingestion, and skin contact.

Target Organ Statement

Pre-existing medical conditions which may be aggravated by exposure include disorders of the skin,

eye, heart, kidney, liver, blood, respiratory system, neurological and hemopoietic organs.

4. First Aid Measures

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion

DO NOT INDUCE VOMITING. If swallowed and the person is conscious, immediately give large amounts of water. Get medical attention.

Skin

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes

Immediately flush eyes with plenty of water for at least fifteen minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures

Flash Point	29C (84F)	Flammable Limits	l _{el} , 1.0%; u _{el} 7.0%
Flash Point Method	TCC	Autoignition temperature	464C (867F)

Extinguishing media

Dry chemical, foam or carbon dioxide. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop leak and disperse vapors.

Protective Equipment

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Hazardous Combustion Products

Involvement in a fire causes formation of carbon monoxide and unidentified organic components.

Unusual Fire and Explosion Hazards

Flammable liquid. Vapor forms explosive mixtures with air. Vapor may travel considerable distances to ignition source and flash back.

NFPA Codes: Health 2 Flammability 3 Reactivity 0

6. Accidental Release Measures

Steps to be taken in case material is released or spilled

Ventilate area. Remove all sources of ignition. Isolate hazard area. Contain and recover liquid. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material and place in a chemical waste container.

Waste Disposal Method

Disposal must be made in accordance with applicable federal, state, and local regulations.

Personal Precautions

Wear appropriate protective equipment as specified in section 8.

7. Handling and Storage

Handling

Avoid contact and inhalation. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling. Transfer methods should avoid static sparks. Use explosion proof ventilation.

Storage

Keep in a tightly closed container, stored in a cooled, dry, ventilated area away from sources of heat or ignition. Protect from physical damage. Isolate from incompatible materials (section 10).

Storage Temperature

Room Temperature

Disposal

Observe all national, state, and local regulations regarding product disposal. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquids).

8. Exposure Controls/Personal Protection

Airborne Exposure Limits

Component: Xylene

ACGIH Threshold Limit Value (TLV): 100 ppm

OSHA Permissible Exposure Limit (PEL): 100 ppm

Engineering Controls

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborn Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source.

Respiratory Protection

If the exposure limit is exceeded, wear a supplied air, full-facepiece respirator, airlined hood, or full-facepiece self-contained breathing apparatus.

Eye Protection

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Skin Protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Other Control Measures

N.A.

9. Physical Properties

Boiling point 137-140C

Evaporation Rate 0.7 (BuAc = 1)

Melting point -25C

Solubility in water Insoluble

Vapor pressure (mmHg) 8 @ 20C

pH Not Applicable

Vapor density (Air = 1) 3.7 (air = 1)
% volatile by volume 100

Specific gravity (H₂O = 1) 0.86 @ 20C

10. Stability and Reactivity

Stability

Stable under ordinary conditions of use and storage.

Conditions to Avoid

Heat, flames, ignition sources and incompatibles.

Hazardous Decomposition Products

Involvement in a fire causes formation of carbon monoxide and unidentified organic components.

Hazardous Polymerization

Will not occur

Incompatibles

Xylene:

Strong oxidizing agents and strong acids.

11. Toxicological Information

Product LD50 Values

Oxosol 306 Oxidizer	Oral Rat LD50 (mg/kg):	4343
Oxosol 306 Oxidizer	Dermal Rabbit LD50 (mg/kg):	1717

Component Cancer List Status

	NTP Carcinogen		IARC Category
	Known	Anticipated	
Xylene	No	No	3

12. Ecological Information

Xylene

When released into the soil, this material may evaporate to a moderate extent. When released into the soil, this material is expected to leach into groundwater, When released into the soil, this material may biodegrade to a moderate extent. When released into water, this material may evaporate to a moderate extent. When released into water, this material may biodegrade to a moderate extent. When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life of less than 1 day. This material is not expected to significantly bioaccumulate (mixed xylenes: octanol/water partition coefficient 3.1 - 3.2; bioconcentration factor - 1.3 eels). This material is expected to be slightly toxic to aquatic life. The LC50/96-hour values for fish are between 10 and 100 mg/l.

13. Disposal Considerations

Observe all national, state, and local regulations regarding product disposal. Containers of this

material may be hazardous when empty since they retain product residues (vapors, liquids).

14. Transport Information

D.O.T.

Proper Shipping Name: Xylenes

Hazard Class: 3

UN Number: 1307

Packing Group: III

I.A.T.A.

Proper Shipping Name: Xylenes

Hazard Class: 3

UN Number: 1307

Packing Group: III

I.M.O.

Proper Shipping Name: Xylenes

Hazard Class: 3

UN Number: 1307

Packing Group: III

15. Regulatory Information

United States

TSCA Regulatory Statement

All intentional ingredients are listed on the TSCA Inventory.

SARA 311/312 Hazard Categories

Component	Fire	Pressure	Reactivity	Acute	Chronic
Xylene	Yes	No	No	Yes	Yes

Europe

EEC Regulatory

All intentional ingredients are listed on the European EINECS Inventory.

EEC LABEL SYMBOL AND CLASSIFICATION



HARMFUL

R: 10-20/21-38

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S: (2-) 25

Keep out of the reach of children. Avoid contact with the eyes.

16. Other Information

NFPA Codes: Health 2 Flammability 3 Reactivity 0

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