

SAFETY DATA SHEET



Conforms to regulation (EC) no. EU 453/2010

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name: Oxosol C14 Oxidizer

Product Number: LS-211

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

Investigational research by professional users

1.3 Details of the Supplier of the Safety Data Sheet

Manufacturer

National Diagnostics
305 Patton Drive
Atlanta, GA 30036
(404) 699-2121
(800) 526-3867
info@nationaldiagnostics.com

1.4 Emergency Telephone Number

ChemTel Inc.

Contract number MIS8894340
1-800 255-3924 (United States, Canada, Puerto Rico & US Virgin Islands)
01-800-099-0731 (Mexico)
400-120-0751 (China)
000-800-100-4086 (India)
1-300-954-583 (Australia)
0-800-591-6042 (Brazil)
+1-813-255-3924 (All other regions)

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

Classification according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]

H226 - Flammable Liquids (Category 3)
H302 - Acute Toxicity-Oral (Category 4)
H312 - Acute Toxicity-Dermal (Category 4)
H314 - Skin Corrosion/Irritation (Category 1C)
H317 - Skin Sensitizer (Category 1)
H318 - Serious Eye Damage/Eye Irritation (Category 1)
H332 - Acute Toxicity-Inhalation (Category 4)

2.2 Label Elements

GHS LABEL ELEMENTS AND CLASSIFICATION

GHS Label Elements



DANGER

H226 - Flammable liquid and vapor.
H302 - Harmful if swallowed
H312 - Harmful in contact with skin.
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H332 - Harmful if inhaled.
P233 - Keep container tightly closed.
P260 - Do not breathe dust/fumes/gas/mist/vapors/spray.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

2.3 Other Hazards

None found.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Chemical Names/Description

Solution of xylene, co-solvent and alkyl ether amine with scintillation phosphors.

Component List

Component	% Comp.	CAS #	EC #	1278/2008 Classification
3-Methoxypropylamine	20 - 30	5332-73-0	226-241-3	H226, H302, H314, H317, H318
Xylene	40 - 50	1330-20-7	215-535-7	H226, H312, H315, H332
Butoxy Ethanol	20 - 30	111-76-2	203-905-0	H302, H312, H315, H319, H332

SECTION 4 - FIRST AID MEASURES

4.1 Description of First Aid Measures

Inhalation

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

Ingestion

If person is conscious and can swallow, immediately give two glasses of water (16 oz.) but DO NOT INDUCE VOMITING. This material is corrosive. If vomiting occurs, give fluids again. Do not give anything by mouth to an unconscious or convulsing person.

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.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

Inhalation

3-Methoxypropylamine:

Nasal discharge, coughing, and discomfort in nose and throat.

Xylene:

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.

Butoxy Ethanol:

Burning in nose and throat, coughing. Headache, dizziness, drowsiness, fatigue, nausea.

Ingestion

3-Methoxypropylamine:

Causes burning of mouth, throat, and stomach with abdominal and chest pain, nausea, vomiting, diarrhea, thirst, weakness, and collapse.

Xylene:

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

Butoxy Ethanol:

Headache, dizziness, drowsiness, fatigue, nausea, vomiting.

Skin

3-Methoxypropylamine:

Severe excess redness and swelling with chemical burns, blister formation, and possible tissue destruction.

Xylene:

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

Butoxy Ethanol:

Redness, pain and itching.

Eyes

3-Methoxypropylamine:

Extreme redness and swelling of the eye. Severe eye damage may cause blindness.

Xylene:

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

Butoxy Ethanol:

Redness, tearing, and pain.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

Unknown/not applicable

SECTION 5 - FIRE FIGHTING MEASURES

5.1 Extinguishing media

Dry powder, foam, carbon dioxide. (Water may be ineffective.)

5.2 Special Hazards Arising from the Substance/Mixture

Hazardous Combustion Products

Thermal decomposition products may include toxic oxides of nitrogen and carbon.

Hazardous Decomposition Products

Toxic levels of ammonia, hydrocarbons, and oxides of nitrogen and carbon may be formed on burning in a limited air supply.

Hazardous Polymerization

Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

5.3 Advice for Firefighters

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.

5.4 Further Information

No data available.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions

Wear appropriate protective equipment as specified in Section 8.

6.2 Environmental Precautions

Prevent discharge into the environment. Dike spills and stop leakage where practical. Do not allow material to enter drains.

6.3 Methods and Materials for Containment and Cleaning Up

Eliminate source of ignition. Ventilate area. Cover with sand, earth or other suitable absorbant to confine spill and sweep or shovel into container. Close container tightly. Avoid breathing vapors.

6.4 References to Other Sections

For disposal information, see Section 13. For protective clothing and equipment, see Section 8.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for Safe 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.

7.2 Conditions for Safe Storage (including any incompatibles)

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).

Incompatibles

3-Methoxypropylamine:

Strong oxidizing agents and acids.

Xylene:

Strong oxidizing agents and strong acids.

Butoxy Ethanol:

Strong oxidizing agents. Strong bases and salts of strong bases at elevated temperatures. Aluminum surfaces.

7.3 Specific End Uses

Investigational research by professional users

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PRECAUTIONS

8.1 Control Parameters

Component: 3-Methoxypropylamine

ACGIH Threshold Limit Value (TLV): No Data

OSHA Permissible Exposure Limit (PEL): None established

Component: Xylene

ACGIH Threshold Limit Value (TLV): 100 ppm

OSHA Permissible Exposure Limit (PEL): 100 ppm

Component: Butoxy Ethanol

ACGIH Threshold Limit Value (TLV): 25 ppm (skin)

OSHA Permissible Exposure Limit (PEL): 25 ppm

8.2 Exposure Controls**Engineering Controls**

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

Respiratory Protection

In conditions where exposure to this substance may occur, 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.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on Basic Physical & Chemical Properties**

a. Appearance	Clear colorless liquid	b. Odor	Slight aromatic
c. Odor Threshold	N.A.	d. pH	Not applicable.
e. Melting/Freezing Point (°C)	N.A.	f. Boiling point (°C)	137-140
g. Flash Point (°C)	32	h. Evaporation Rate	0.7
i. Flammability	Combustible	j. Upper/Lower Flammability or Explosive Limits	No Data
k. Vapor Pressure	25mmHg @ 25C	l. Vapor Density (Air = 1)	3.7
m. Relative Density	0.87	n. Water Solubility	Insoluble
o. Partition Coefficient n-octanol/water	Mixture	p. Autoignition Temperature (°C)	No Data
q. Decomposition Temperature (°C)	N.A.	r. Viscosity	1.4 cSt @ 23 C
s. Explosive Properties	Combustible liquid and vapors	t. Oxidizing Properties	Not an oxidizer

SECTION 10 - STABILITY AND REACTIVITY**10.1 Reactivity**

Not reactive under recommended conditions of use and storage.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage.

10.3 Possibility of Hazardous Reactions

Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

10.4 Conditions to Avoid

Heat, flame, ignition sources and incompatibles.

10.5 Incompatible Materials**3-Methoxypropylamine:**

Strong oxidizing agents and acids.

Xylene:

Strong oxidizing agents and strong acids.

Butoxy Ethanol:

Strong oxidizing agents. Strong bases and salts of strong bases at elevated temperatures. Aluminum surfaces.

10.6 Hazardous Decomposition Products

Toxic levels of ammonia, hydrocarbons, and oxides of nitrogen and carbon may be formed on burning in a limited air supply.

SECTION 11 - TOXICOLOGICAL INFORMATION**Product LD50 Values****Oral Rat LD50 (mg/kg)**

2760

Dermal Rabbit LD50 (mg/kg)

8000

Component Cancer List Status

	NTP Carcinogen		IARC Category
	Known	Anticipated	
3-Methoxypropylamine	No	No	None
Xylene	No	No	3
Butoxy Ethanol	No	No	None

Potential Health Effects

Inhalation

3-Methoxypropylamine

Vapors or mist, especially as generated from heating the material or as from exposure in poorly confined spaces, are irritating to the nose and throat. Prolonged or repeated exposure may result in lung damage. Prolonged or repeated exposure may result in the absorption of potentially harmful amounts of material.

Xylene

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

Butoxy Ethanol

Vapors may cause irritation to the nose, throat, and respiratory tract and are toxic if inhaled.

Ingestion

3-Methoxypropylamine

Causes burning of mouth, throat and stomach with abdominal and chest pain. Aspiration may result during swallowing or vomiting, resulting in lung damage.

Xylene

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

Butoxy Ethanol

Moderately toxic if ingested.

Skin

3-Methoxypropylamine

Causes severe irritation with pain.

Xylene

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

Butoxy Ethanol

Product is mildly irritating to the skin and toxic if absorbed through the skin.

Eyes

3-Methoxypropylamine

Causes severe irritation and chemical burns of the eye. Severe eye damage may cause blindness.

Xylene

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

Butoxy Ethanol

Causes severe eye irritation.

Carcinogenicity

3-Methoxypropylamine

Not listed as a known or anticipated carcinogen by OSHA, IARC, or NTP.

Xylene

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

Butoxy Ethanol

Not listed as a known or anticipated carcinogen by NTP or IARC.

Mutagenicity

3-Methoxypropylamine

No information found.

Xylene

Has been shown to be positive in mutagenicity assays.

Butoxy Ethanol

No information found.

Reproductive Toxicity

3-Methoxypropylamine

No information found.

Xylene

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.

Butoxy Ethanol

Inhalation exposure of pregnant rabbits caused some lethality to the dam and fetus at 200 ppm, but there were no effects at 100 ppm and below. Inhalation exposure to pregnant rats caused irritancy to the dams and related fetotoxicity at 200 and 100 ppm, but there were no effects at 50 ppm and below.

Teratogenic Effects

3-Methoxypropylamine

No information found.

Xylene

May cause teratogenic effects.

Butoxy Ethanol

Has not been shown to cause birth defects.

Routes of Entry

3-Methoxypropylamine

Inhalation, ingestion, skin contact.

Xylene

Inhalation, ingestion, and skin contact.

Butoxy Ethanol

Inhalation, ingestion, skin contact.

Target Organ Statement

3-Methoxypropylamine

Skin contact may aggravate an existing dermatitis (skin condition). Overexposure to vapor, dust or mist may aggravate existing respiratory conditions, such as asthma, bronchitis, and inflammatory or fibrotic respiratory disease.

Xylene

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.

Butoxy Ethanol

Preexisting skin, eye, and lung disorders may be aggravated by exposure.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity

COMPONENT: 3-Methoxypropylamine

	Vertebrates	Invertebrates	Algae	Microorganisms
Aquatic Toxicity (ppm unless otherwise noted)	LC50 (96 hr golden orfe) 146mg/ml	EC50 (48hr, daphnia) 65mg/L	EC50 (72 hr) 31mg/L	EC50 (72hr) 182mg/L
	Birds	Arthropods	Plants	Microorganisms
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

COMPONENT: Xylene

	Vertebrates	Invertebrates	Algae	Microorganisms
Aquatic Toxicity (ppm unless otherwise noted)	LC50 (96 hr, Salmo gairdneri) 2.6 mg/l	IC50 (Daphnia magna) 1 mg/l.	EC50 2.2 mg/l	IC50 (24hr) 96mg/l
	Birds	Arthropods	Plants	Microorganisms
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	No data	IC50 (10hrs) 0.22g/g soil

COMPONENT: Butoxy Ethanol

	Vertebrates	Invertebrates	Algae	Microorganisms
Aquatic Toxicity (ppm unless otherwise noted)	LC50 (96hr, trout) 1464mg/l	EC50 (48 hr daphnia) 1800 mg/L	EC50 (72 hr) 911mg/l	Toxicity Threshold 483mg/L
	Birds	Arthropods	Plants	Microorganisms

Terrestrial Environment Toxicity
(ppm unless otherwise noted)

No data

No data

No data

No data

12.2 Persistence and Degradability

3-Methoxypropylamine

Not readily biodegradable (57% degradation in 56 days)

Xylene

Readily biodegradable, >85% elimination in 28 days

Butoxy Ethanol

Readily biodegradable (90% in 28 days)

12.3 Bioaccumulative Potential

3-Methoxypropylamine

BCF 2.7-3.6

Xylene

BCF 5-15

Butoxy Ethanol

No data

12.4 Mobility in Soil

3-Methoxypropylamine

Log Koc 1.41

Xylene

log Koc 2.73

Butoxy Ethanol

No data

12.5 Results of PBT and vPvB Assessment

3-Methoxypropylamine

Not PBT or vPvB

Xylene

not PBT / vPvB

Butoxy Ethanol

Not PBT/vPvB

12.6 Other Adverse Effects

3-Methoxypropylamine

None

Xylene

None

Butoxy Ethanol

None

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Offer surplus or non-recyclable product to licensed disposal company. Disposal is subject to user compliance with applicable law and product characteristics at time of disposal. Dispose of packaging as product.

SECTION 14 - TRANSPORT INFORMATION

	ADR/RID	IATA	IMO	DOT
14.1 UN Number	2924	2924	2924	2924
14.2 Shipping Name	Flammable liquid, corrosive, N.O.S.	Flammable liquid, corrosive, N.O.S.	Flammable liquid, corrosive, N.O.S.	Flammable liquid, corrosive, N.O.S.
14.3 Hazard Class	3, 8	3, 8	3, 8	3, 8
14.4 Packing Group	II	II	II	II
14.5 Environmental Hazards	N.A.	N.A.	N.A.	N.A.
14.6 Special Precautions	N.A.	N.A.	N.A.	N.A.

SECTION 15 - REGULATORY INFORMATION

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

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
3-Methoxypropylamine	Yes	No	No	Yes	Yes
Xylene	Yes	No	No	Yes	Yes
Butoxy Ethanol	Yes	No	No	Yes	No

Europe**EEC Regulatory**

All intentional ingredients are listed on the European EINECS Inventory.

SECTION 16 - OTHER INFORMATION**Revisional Updates**

4/26/2019 - Updated Section 1.4

5/29/2015 - Updated Sections 2.1 and 3.2

1/10/2014 - Released Version 1.0

NFPA Codes

Health 3 Flammability 3 Reactivity 0

Dangers**3-Methoxypropylamine**

H226 - Flammable liquid and vapor.

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

Xylene

H226 - Flammable liquid and vapor.

H312 - Harmful in contact with skin.

H315 - Causes skin irritation.

H332 - Harmful if inhaled.

Butoxy Ethanol

H302 - Harmful if swallowed

H312 - Harmful in contact with skin.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

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