ULTRANOX® 626



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Date of last issue: 02/22/2023 Date of first issue: 08/17/2007

SECTION 1. IDENTIFICATION

Product identifier

Product name : ULTRANOX® 626

Recommended use of the chemical and restrictions on use

Recommended use : Antioxidant

Mixture

Restrictions on use : Reserved for industrial and professional use.

Manufacturer or supplier's details

Supplier

Company : SI Group, Inc.

Address : 1790 Hughes Landing Blvd., Suite 600

The Woodlands, TX

United States of America (USA)

77380

E-mail address : msdsrequest@siigroup.com

Emergency telephone number

Emergency Phone Number : CHEMTREC/US: +1 703-741-5970

NCEC/CHINA: 400 120 6011 NCEC/INDIA: 000 800 100 7479 NCEC/ROW: +44 1235 239670

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Combustible dust

GHS label elements

Signal word : Warning

Hazard statements : May form combustible dust concentrations in air.

Other hazards

None known.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture Mixture CAS-No. 26741-53-7

Chemical nature Polymer stabilizer

Hazardous components No hazardous ingredients

SECTION 4. FIRST AID MEASURES

General advice : No hazards which require special first aid measures.

If inhaled Move to fresh air in case of accidental inhalation of dust or

> fumes from overheating or combustion. If symptoms persist, call a physician.

In case of skin contact Take off contaminated clothing and shoes immediately.

Wash off with soap and plenty of water.

Flush eyes with water as a precaution. In case of eye contact

> Remove contact lenses. Protect unharmed eve.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

If swallowed Clean mouth with water and drink afterwards plenty of water.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.

Most important symptoms

and effects, both acute and

delayed

Product dust may be irritating to eyes, skin and respiratory

system.

Notes to physician The first aid procedure should be established in consultation

with the doctor responsible for industrial medicine.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment.

Alcohol-resistant foam Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

High volume water jet

Specific hazards during fire-

fighting

Do not allow run-off from fire fighting to enter drains or water

courses.

Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a

potential dust explosion hazard.

Hazardous combustion prod- : No hazardous combustion products are known

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ucts

Further information : Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

Special protective equipment :

for firefighters

In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment.

Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces

with compressed air).

Non-sparking tools should be used.

Avoid dust formation.

Environmental precautions : If the product contaminates rivers and lakes or drains inform

respective authorities.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion

Advice on safe handling

Avoid dust formation. Provide appropriate exhaust ventilation

at places where dust is formed.

: Minimize dust generation and accumulation.

Routine housekeeping should be instituted to ensure that

dusts do not accumulate on surfaces.

Dry powders can build static electricity charges when subject-

ed to the friction of transfer and mixing operations. Keep away from heat and sources of ignition.

For personal protection see section 8.

Dispose of rinse water in accordance with local and national

regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated

place.

Further information on stor-

age conditions

Incompatible with oxidizing agents.

Incompatible with strong acids and bases.

Materials to avoid : Never allow product to get in contact with water during stor-

age.

Further information on stor-

age stability

: Keep in a dry place.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures

: It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.

Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure adequate ventilation, especially in confined areas.

Dust formation may be relevant in the processing of this product. In addition to substance-specific OELs, general limitations of concentrations of particulates in the air at work-places have to be considered in workplace risk assessment. Relevant limits include: OSHA PEL for Particulates Not Otherwise Regulated of 15 mg/m3 - total dust, 5 mg/m3 - respirable fraction; and ACGIH TWA for Particles (insoluble or poorly soluble) Not Otherwise Specified of 3 mg/m3 - respirable particles, 10 mg/m3 - inhalable particles.

Personal protective equipment

Respiratory protection

General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazard-ous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection Remarks

: Polyvinyl alcohol or nitrile- butyl-rubber gloves Before remov-

ing gloves clean them with soap and water.

Eye protection : Eye wash bottle with pure water Tightly fitting safety goggles

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Skin and body protection : Dust impervious protective suit

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : Handle in accordance with good industrial hygiene and safety

practice.

Wash hands before breaks and at the end of workday.

Environmental exposure controls

Water : Do not let product enter drains.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : powder, or, granules Colour : white or off-white

Odour : slight

Odour Threshold : No data available pH : No data available

Melting point/range : 320 °F / 160 °C

Boiling point/boiling range : No data available

Flash point : 334 °F / 168 °C

Evaporation rate : <Ether

Flammability (solid, gas) : May form combustible dust concentrations in air.

Upper explosion limit : No data available Lower explosion limit : No data available Vapour pressure : No data available Relative vapour density : Heavier than air

Relative density : 1.0

Bulk density : No data available

Solubility(ies)

Water solubility : insoluble, hydrolyses

Solubility in other solvents Partition coefficient: n-

octanol/water

: No data available: No data available

Auto-ignition temperature : 700 °F / 371 °C

Decomposition temperature

Viscosity

: No data available

Viscosity, dynamic : No data available Viscosity, kinematic : No data available

Explosive properties : No data available

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Oxidizing properties : No data available Surface tension No data available

SECTION 10. STABILITY AND REACTIVITY

Stable under recommended storage conditions. Reactivity No decomposition if stored and applied as directed. Chemical stability

: No data available

Possibility of hazardous reac-

No dangerous reaction known under conditions of normal use.

Incompatible materials

: Water

Oxidizing agents Acids and bases

Hazardous decomposition

Conditions to avoid

products

Carbon oxides **Hydrocarbons**

Oxides of phosphorus Phosphorus compounds

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity Remarks: No data available

Acute inhalation toxicity Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Skin corrosion/irritation

Product:

Remarks No significant adverse effects were reported

Serious eye damage/eye irritation

Product:

Remarks No significant adverse effects were reported

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Product:

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Remarks : This information is not available.

IARC No component of this product present at levels greater than or equal to 0.1% is

identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is

on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or equal to 0.1% is

identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Product:

Effects on fertility : Remarks: No data available

Effects on foetal develop-

ment

: Remarks: No data available

STOT - single exposure

Product:

Remarks : No data available

STOT - repeated exposure

Product:

Remarks : No data available

Repeated dose toxicity

Based on available data, the classification criteria are not met.

Aspiration toxicity

Product:

No data available

Further information

Product:

Remarks : No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Based on available data, the classification criteria are not met.

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Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Mobility in soil

Product:

Mobility : Remarks: No data available

Other adverse effects

Product:

Results of PBT and vPvB

assessment

: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ozone-Depletion Potential

Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Sub-

stances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological infor-

mation

An environmental hazard cannot be excluded in the event of

unprofessional handling or disposal.

Harmful to aquatic organisms, may cause long-term adverse

effects in the aquatic environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water

courses or the soil.

Do not contaminate ponds, waterways or ditches with chemi-

cal or used container.

Offer surplus and non-recyclable solutions to a licensed dis-

posal company.

Contaminated packaging : Empty remaining contents. Dispose of as unused product. Do

not re-use empty containers.

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SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No. UN 3077

Proper shipping name Environmentally hazardous substance, solid, n.o.s.

(3,9-bis(2,4-di-tert-butylphenoxy)-2,4,8,10-tetraoxa-3,9-

diphosphaspiro[5.5]undecane)

Class 9 Packing group III

Labels Class 9 - Miscellaneous Dangerous Goods 956

Packing instruction (cargo

aircraft)

Packing instruction (passen-

ger aircraft)

956

IMDG-Code

UN number UN 3077

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. Proper shipping name

(3,9-bis(2,4-di-tert-butylphenoxy)-2,4,8,10-tetraoxa-3,9-

diphosphaspiro[5.5]undecane, 3,9-bis(2,4-di-tert-

butylphenoxy)-2,4,8,10-tetraoxa-3,9diphosphaspiro[5.5]undecane)

Class Packing group III Labels 9 EmS Code F-A, S-F Marine pollutant yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not regulated by DOT and TDG if shipped or transported in packaging less than 400KG by road and/or rail.

National Regulations

49 CFR

UN/ID/NA number UN 3077

Proper shipping name Environmentally hazardous substances, solid, n.o.s.

(3,9-bis(2,4-di-tert-butylphenoxy)-2,4,8,10-tetraoxa-3,9-

diphosphaspiro[5.5]undecane)

Class 9 Packing group III

Class 9 - Miscellaneous Dangerous Goods Labels

ERG Code 171

yes(3,9-bis(2,4-di-tert-butylphenoxy)-2,4,8,10-tetraoxa-3,9-Marine pollutant

diphosphaspiro[5.5]undecane)

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data

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Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

Combustible dust

SARA 313 : This material does not contain any chemical components with

known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

US State Regulations

Massachusetts Right To Know

TIPA 122-20-3

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Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

3,9-bis(2,4-di-tert-butylphenoxy)-2,4,8,10-tetraoxa-3,9-diphosphaspiro[5.5]undecane

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

Product does not contain any listed chemicals

Washington Chemicals of High Concern

Product does not contain any listed chemicals

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TCSI : On the inventory, or in compliance with the inventory

TSCA : All substances listed as active on the TSCA inventory

AIIC : On the inventory, or in compliance with the inventory

DSL : All components of this product are on the Canadian DSL

ENCS : On the inventory, or in compliance with the inventory

ISHL : On the inventory, or in compliance with the inventory

KECI : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

NZIoC : Not in compliance with the inventory

NZIoC : On the inventory, or in compliance with the inventory

TECI : Not in compliance with the inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

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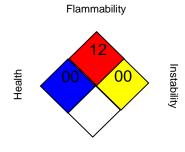
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SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



Special hazard

HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registra-

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tion, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

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The information and recommendations contained in this safety data sheet are, to the best of SI Group's knowledge, belief and experience, accurate and reliable as of the date of its publication and describe the product only with regard to safety requirements. It is the user's responsibility to confirm that it is using the most current available version of this safety data sheet. The information and recommendations herein are offered for the user's consideration and examination. Identified uses in this safety data sheet do neither represent an agreement on the quality of the Product nor a designated use. For the avoidance of doubt, nothing herein shall be construed as relieving the user of its responsibility to ensure that the product is suitable for the intended use and that any proprietary rights, existing laws and legislation are observed. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING THE PRODUCT DESCRIPTIONS, DATA OR INFORMATION HEREIN. This safety data sheet is neither a Certificate of Analysis (CoA) nor a technical data sheet and shall not be mistaken for a description of the product's specifications. If user repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the packaging. Appropriate warnings and safe-handling procedures should be provided to handlers and further users of the product. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted.

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