SDS

SAFETY DATA SHEET

Oakwood Products, Inc
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Estill, SC 29918
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Phone Numbers:
- Product Information: 803-739-8800
- Transportation Emergency: 800-451-8346
- Outside the USA: 760-602-8700

MATERIAL IDENTIFICATION

NAME: 3-((Bis(diisopropylamino)phosphino)oxy)-propanenitrile
CAS#: [102691-36-1]
CAT#: 213122
For R&D use only.

HAZARDS IDENTIFICATION

GHS Classification
- Flammable liquids (Category 3)
- Acute toxicity, oral (Category 4)
- Skin corrosion/irritation (Category 2)
- Serious skin damage/irritation (Category 2A)
- Sensitisation, Skin (Category 1)
- Sensitisation, respiratory (Category 1)

GHS Label elements, including precautionary statements

Signal Word: Danger

Hazard Statement(s)
- H226: Flammable liquid and vapour
- H302: Harmful if swallowed
- H315: Causes skin irritation
- H317: May cause an allergic skin reaction
- H319: Causes serious eye irritation
- H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary Statement(s)
- P210: Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

3-((Bis(diisopropylamino)phosphino)oxy)-propanenitrile
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.
P304 + P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P342 + P311 IF experiencing respiratory symptoms: call a POISON CENTER or doctor/physician.

COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: 2-Cyanoethyl N,N,N',N'-tetraisopropylphosphorodiimidite, Bis(diisopropylamino)(2-cyanoethoxy)phosphine
Formula: C15H32N3O
Molecular Weight: 301.42 g/mol

<table>
<thead>
<tr>
<th>CAS</th>
<th>Description</th>
<th>Concentration</th>
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<tbody>
<tr>
<td>102691-36-1</td>
<td>3-((Bis(diisopropylamino)phosphino)oxy)-propanenitrile</td>
<td>95%</td>
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FIRST AID MEASURES

In case of eye contact
Immediately flush eyes with running water for at least 15 minutes while keeping eyes open. Seek medical attention.

In case of skin contact
Wash thoroughly with soap and plenty of water. Seek medical attention.

If inhaled
Remove victim from source of exposure to fresh air. If breathing is difficult, administer oxygen. Seek medical attention.

If swallowed
Do not induce vomiting. Give water to victim to drink. Seek medical attention.

FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use carbon dioxide, dry chemical powder, alcohol-resistant or polymer foam.

Special protective equipment for fire-fighters
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual fire and explosion hazards/decomposition of product
emits toxic fumes under fire conditions.
**ACCIDENTAL RELEASE MEASURES**

**Personal precautions**
Use personal protective equipment. Avoid breathing fumes, vapors, mists or gas. Ventilate area. Remove all sources of ignition. Evacuate personnel.

**Environmental precautions**
Prevent further leakage if safe to do so.

**Methods and materials for containment and clean up**
Absorb spills on sand or vermiculite and place in closed container for disposal.

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**HANDLING AND STORAGE**

**Precautions for safe handling**
Avoid prolonged use. Avoid all direct contact with material. Do not breathe dust or vapor. Wash thoroughly after handling.

**Precautions for safe storage**
Keep container tightly closed. Store in a cool, dry, well-ventilated area.
Air sensitive
Moisture sensitive.
Keep cold.
Store at -20°

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**EXPOSURE CONTROL/PERSOANAL PROTECTION**

Contains no substances with occupational exposure limit values.

**Personal protective equipment**

**Eye/face protection**
Wear protective safety goggles or face shields tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

**Hand/skin protection**
Avoid all direct contact with product.
Wear chemical-resistant gloves.
Wear protective clothing and boots.
After contact with skin, wash immediately.

**Respiratory protection**
Ensure adequate ventilation during use. Approved respiratory equipment must be used when airborne concentrations are unknown or exceed the exposure limits.

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**PHYSICAL AND CHEMICAL PROPERTIES**

- **Appearance**: Liquid
- **Odour**: no data available
- **Odour Threshold**: no data available
- **Melting point/Freezing Point**: no data available
- **Boiling Point**: 98-100°C/0.5mm Hg
- **Flash Point**: 60°C-closed cup
STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
150 °C - Heating may cause an explosion.

Conditions to avoid
Air.
Moisture.
Heat, flames and sparks. Extremes of temperature and direct sunlight.

Incompatible materials
Strong oxidizing agents, strong bases, water, and air.

Hazardous decomposition products
May evolve carbon monoxide, carbon dioxide, nitrogen oxides, and phosphorus oxides.

TOXICOLOGICAL INFORMATION

Acute toxicity
Skin corrosion/irritation
Causes skin irritation

Serious eye damage/eye irritation
Causes serious eye irritation

Respiratory or skin sensitization
May cause an allergic skin reaction
May cause allergy or asthma symptoms or breathing difficulties if inhaled

Germ cell mutagenicity
no data available

Carcinogenicity
no data available

Reproductive toxicity
no data available

Evaporation Rate
no data available

Flammability (solid, gas)
no data available

Upper/Lower Flammability or Explosive limits
no data available

Vapour pressure
no data available

Relative Density
0.949

Solubility(ies)
no data available

Partition coefficient: n-octanol/water
no data available

Auto-ignition temperature
no data available

Decomposition temperature
no data available

Viscosity
no data available

Refractive Index
1.47
STOT-single exposure
no data available

STOT-repeated exposure
no data available

Aspiration hazard
no data available

Exposure Routes
Irritating to skin, eyes, and respiratory system.
May have harmful effects if inhaled or swallowed.

Signs and Symptoms of Exposure
Nitriles may resemble cyanides in toxicity. Exposure to nitriles may cause increased salivation, flushing of the face, eye and respiratory tract irritation, shallow respiration, nausea, vomiting, weakness, headache and diarrhea. Jaundice, anemia, and leukocytosis have been reported in some cases.

To the best of our knowledge, the health hazards of this material have not been fully investigated.

ECOLOGICAL INFORMATION

Toxicity
no data available

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
no data available

DISPOSAL CONSIDERATIONS

Dissolve in or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all Federal, State and local laws.

TRANSPORT INFORMATION

**DOT**
Flammable liquids, n.o.s.
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UN1993  III

**IMDG**
Flammable liquid, n.o.s.
SAFETY DATA SHEET

If swallowed: Rinse mouth. Do NOT induce vomiting.

Flammable liquid and vapour

If on skin (or hair): Remove/Take off immediately all contaminated clothing. Take off immediate contaminated clothing.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Description

If experiencing respiratory symptoms: call a poison centre or seek medical advice/attention.

May cause allergy or asthma symptoms or breathing difficulties if inhaled. In case of skin contact, wash thoroughly with soap and water. In case of eye contact, rinse cautiously with water for several minutes. If eye irritation persists, seek medical attention.

May cause an allergic skin reaction.

C15H32N3OP

95%

Keep away from heat/sparks/open flames/hot surfaces. — No storage restrictions.

IATA

Flammable liquid, n.o.s.

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UN1993 III

REGULATORY INFORMATION

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 313.

New Jersey Right to Know Components

This product may contain a chemical on the New Jersey Right to Know Components List.

CAS

3-((Bis(diisopropylamino)phosphino)oxy)-propanenitrile 102691-36-1

California Prop. 65 Components

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

OTHER INFORMATION

Version : 1.5
Revision Date : 3/19/2018

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Oakwood shall not be held liable for any damage resulting from handling or from contact with the above product.