

# CHEMICAL PRODUCT SAFETY DATA SHEET

Prepared in accordance with GB/T 16483 and GB/T 17519.

Product name: RHEOLUBE 748D

Issue date: August-09-2011  
 Revision date: February-03-2023  
 Version #: 05  
 SDS No: Rheolube 748D

## SECTION 1 Chemical product and company identification

**English name of chemical** RHEOLUBE 748D  
**Product Code** Rheolube 748D  
**Manufacturer/Supplier** Nye Lubricants, Inc.  
**Address** 12 Howland Road  
 Fairhaven, MA 02719  
 United States  
**Contact person** Nye Lubricants EH&S  
**Telephone** General Assistance 508-996-6721  
**e-mail** sds@nyelubricants.com  
**Emergency telephone number** 3E Online 800-451-8346

### Recommended use and Limitations on use

**Recommended use** Lubricating Grease  
**Issue date** August-09-2011  
**Revision date** February-03-2023  
**Supersedes date** February-07-2020

## SECTION 2 Hazards identification

**Emergency overview** Possible reproductive hazard.

### GHS hazard categories

**Physical hazards** Not classified.  
**Health hazards** Reproductive toxicity Category 2  
**Environmental hazards** Not classified.

### Label elements

#### Pictograms



**Signal word** Warning

#### Hazard statement

H361 Suspected of damaging fertility or the unborn child.

#### Precautionary statement

##### Prevention

P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.

##### Response

P308 + P313 IF exposed or concerned: Get medical advice/attention.

##### Safety storage

P405 Store locked up.

##### Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Physical and chemical hazards** The product is stable and non-reactive under normal conditions of use, storage and transport. No unusual fire or explosion hazards noted.

|                                 |                                                                                                                                                                                                    |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Health hazards</b>           | Prolonged inhalation may be harmful. Expected to be a low ingestion hazard. Direct contact with eyes may cause temporary irritation.                                                               |
| <b>Environmental hazards</b>    | The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. |
| <b>Supplemental information</b> | None.                                                                                                                                                                                              |

### SECTION 3 Composition/information on ingredients

|                                                                          |                          |                   |
|--------------------------------------------------------------------------|--------------------------|-------------------|
| <b>Substance/mixture</b>                                                 | Mixture                  |                   |
| <b>Chemical name</b>                                                     | <b>Concentration (%)</b> | <b>CAS Number</b> |
| 二氧化硅, 无定形, FUMED, CRYSTAL-FREE<br>SILICA, AMORPHOUS, FUMED, CRYSTAL-FREE | 1 - < 3                  | 112945-52-5       |
| 烷基化二苯胺<br>ALKYLATED DIPHENYLAMINE                                        | < 1                      | Trade Secret      |
| 磷酸三苯脂<br>TRIPHENYL PHOSPHATE                                             | < 0.2                    | 115-86-6          |
| Other components below reportable levels                                 | 90 - 100                 |                   |

### SECTION 4 First aid measures

|                                                     |                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation</b>                                   | Move to fresh air. Call a physician if symptoms develop or persist.                                                                                                                                                                                                                                       |
| <b>Skin contact</b>                                 | Wash off with soap and water. Get medical attention if irritation develops and persists.                                                                                                                                                                                                                  |
| <b>Eye contact</b>                                  | Rinse with water. Get medical attention if irritation develops and persists.                                                                                                                                                                                                                              |
| <b>Ingestion</b>                                    | Rinse mouth. Get medical attention if symptoms occur.                                                                                                                                                                                                                                                     |
| <b>Most important symptoms and health effects</b>   | Direct contact with eyes may cause temporary irritation.                                                                                                                                                                                                                                                  |
| <b>Personal protection for first-aid responders</b> | IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. |
| <b>Notes to physician</b>                           | Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.                                                                                                                                                                                    |

### SECTION 5 Fire-fighting measures

|                                         |                                                                                               |
|-----------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Extinguishing media</b>              | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).                                   |
| <b>Extinguishing media to avoid</b>     | Do not use water jet as an extinguisher, as this will spread the fire.                        |
| <b>Specific hazards</b>                 | During fire, gases hazardous to health may be formed.                                         |
| <b>Special fire fighting procedures</b> | Move containers from fire area if you can do so without risk.                                 |
| <b>Protection of fire-fighters</b>      | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| <b>General fire hazards</b>             | No unusual fire or explosion hazards noted.                                                   |
| <b>Specific methods</b>                 | Use standard firefighting procedures and consider the hazards of other involved materials.    |

### SECTION 6 Accidental release measures

|                                                                            |                                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal precautions, protective equipment and emergency procedures</b> |                                                                                                                                                                                                                                             |
| <b>For non-emergency personnel</b>                                         | Wear appropriate protective equipment and clothing during clean-up.                                                                                                                                                                         |
| <b>For emergency responders</b>                                            | Keep unnecessary personnel away. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.                                          |
| <b>Environmental precautions</b>                                           | Avoid discharge into drains, water courses or onto the ground.                                                                                                                                                                              |
| <b>Clean-up methods and materials and containment measures</b>             | Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. |
|                                                                            | Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.                                                                                                              |
| <b>Prevention of secondary hazards</b>                                     | Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.                                                                                                                                       |
|                                                                            | Not available.                                                                                                                                                                                                                              |

## SECTION 7 Handling and storage

|                 |                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling</b> | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. |
| <b>Storage</b>  | Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).                                                                                                                                                                                                                                                              |

## SECTION 8 Exposure controls/personal protection

### Exposure limits

No exposure limits noted for ingredient(s).

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Monitoring methods

Follow standard monitoring procedures.

### Engineering measures

Good general ventilation 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.

### Personal protective equipment

#### Respiratory protection

Chemical respirator with organic vapor cartridge and full facepiece.

#### Hand protection

Wear appropriate chemical resistant gloves.

#### Eye protection

Chemical respirator with organic vapor cartridge and full facepiece.

#### Skin and body protection

Use of an impervious apron is recommended.



### Hygiene measures

Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## SECTION 9 Physical and chemical properties

### Appearance

|                                                                |                               |
|----------------------------------------------------------------|-------------------------------|
| <b>Physical state</b>                                          | Liquid.                       |
| <b>Form</b>                                                    | Liquid.                       |
| <b>Color</b>                                                   | Not available.                |
| <b>Odor</b>                                                    | Not available.                |
| <b>pH</b>                                                      | Not available.                |
| <b>Melting point/freezing point</b>                            | Not available.                |
| <b>Boiling point, initial boiling point, and boiling range</b> | Not available.                |
| <b>Flash point</b>                                             | 467.6 °F (242.0 °C) ASTM D-92 |
| <b>Explosive limit - lower (%)</b>                             | Not available.                |
| <b>Explosive limit - upper (%)</b>                             | Not available.                |
| <b>Vapor pressure</b>                                          | Not available.                |
| <b>Vapor density</b>                                           | Not available.                |
| <b>Relative density</b>                                        | Not available.                |
| <b>Density</b>                                                 | 0.88 g/cm <sup>3</sup>        |
| <b>Solubility(ies)</b>                                         |                               |
| <b>Solubility (water)</b>                                      | Not available.                |
| <b>Partition coefficient (n-octanol/water)</b>                 | Not available.                |
| <b>Auto-ignition temperature</b>                               | Not available.                |
| <b>Decomposition temperature</b>                               | Not available.                |
| <b>Flammability (solid, gas)</b>                               | Not applicable.               |

**Other data**

|                                 |                   |
|---------------------------------|-------------------|
| <b>Explosive properties</b>     | Not explosive.    |
| <b>Kinematic viscosity</b>      | 30000 cSt         |
| <b>Kinematic viscosity temp</b> | 104 °F (40 °C)    |
| <b>Oxidizing properties</b>     | Not oxidizing.    |
| <b>Percent volatile</b>         | 73.12 % estimated |
| <b>Shelf life</b>               | 4 years           |
| <b>Specific gravity</b>         | 1.2 estimated     |
| <b>VOC</b>                      | 73.01 % estimated |

**SECTION 10 Stability and reactivity**

|                                           |                                                                                               |
|-------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| <b>Stability</b>                          | Material is stable under normal conditions.                                                   |
| <b>Possibility of hazardous reactions</b> | No dangerous reaction known under conditions of normal use.                                   |
| <b>Conditions to avoid</b>                | Contact with incompatible materials.                                                          |
| <b>Incompatible materials</b>             | Strong oxidizing agents.                                                                      |
| <b>Hazardous decomposition products</b>   | No hazardous decomposition products are known.                                                |

**SECTION 11 Toxicological information**

**Acute toxicity** Not known.

| Components | Species | Test Results |
|------------|---------|--------------|
|------------|---------|--------------|

SILICA, AMORPHOUS, FUMED, CRYSTAL-FREE (CAS 112945-52-5)

**Acute****Oral**

|      |     |            |
|------|-----|------------|
| LD50 | Rat | 3160 mg/kg |
|------|-----|------------|

TRIPHENYL PHOSPHATE (CAS 115-86-6)

**Acute****Dermal**

|      |        |            |
|------|--------|------------|
| LD50 | Rabbit | 7900 mg/kg |
|------|--------|------------|

**Oral**

|      |     |            |
|------|-----|------------|
| LD50 | Rat | 3500 mg/kg |
|------|-----|------------|

**Routes of exposure** Inhalation.

**Symptoms** Direct contact with eyes may cause temporary irritation.

**Skin corrosion/irritation** Prolonged skin contact may cause temporary irritation.

**Serious eye damage/eye irritation** Direct contact with eyes may cause temporary irritation.

**Respiratory or skin sensitization**

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitizer** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity****IARC Monographs. Overall Evaluation of Carcinogenicity**

|                                                          |                                                     |
|----------------------------------------------------------|-----------------------------------------------------|
| SILICA, AMORPHOUS, FUMED, CRYSTAL-FREE (CAS 112945-52-5) | 3 Not classifiable as to carcinogenicity to humans. |
|----------------------------------------------------------|-----------------------------------------------------|

**Toxic to reproduction** Suspected of damaging fertility or the unborn child.

**Specific target organ toxicity following single exposure** Not classified.

**Specific target organ toxicity following repeated exposure** Not classified.

**Aspiration hazard** Not an aspiration hazard.

**Chronic effects** Prolonged inhalation may be harmful.

**SECTION 12 Ecological information****Ecotoxicological data**

| Components                         | Species                                                                                                                                                                                            |                                                     | Test Results                    |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------------------------------|
| TRIPHENYL PHOSPHATE (CAS 115-86-6) |                                                                                                                                                                                                    |                                                     |                                 |
| Aquatic                            |                                                                                                                                                                                                    |                                                     |                                 |
| Acute                              |                                                                                                                                                                                                    |                                                     |                                 |
| Crustacea                          | EC50                                                                                                                                                                                               | Water flea (Daphnia magna)                          | >= 0.86 - <= 1.2 mg/l, 48 hours |
| Fish                               | LC50                                                                                                                                                                                               | Rainbow trout,donaldson trout (Oncorhynchus mykiss) | 0.3, 96 hours                   |
| Ecotoxicity                        | The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. |                                                     |                                 |
| Persistence and degradability      | No data is available on the degradability of any ingredients in the mixture.                                                                                                                       |                                                     |                                 |
| Bioaccumulation                    |                                                                                                                                                                                                    |                                                     |                                 |
| Mobility in soil                   | No data available for this product.                                                                                                                                                                |                                                     |                                 |
| Other hazardous effects            | The product contains volatile organic compounds which have a photochemical ozone creation potential.                                                                                               |                                                     |                                 |

**SECTION 13 Disposal considerations**

|                                   |                                                                                                                                                                                                                  |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Residual waste</b>             | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
| <b>Contaminated packaging</b>     | Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.       |
| <b>Local disposal regulations</b> | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.                         |

**SECTION 14 Transport information****CNDG**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.

**SECTION 15 Regulatory information****Law of the People's Republic of China on Prevention and Control of Occupational Diseases****Classification of occupational disease hazards**

PHOSPHORUS AND ITS COMPOUNDS (PHOSPHINE, ZINC PHOSPHIDE, ALUMINUM PHOSPHIDE, AND ORGANIC PHOSPHORUS ARE LISTED SEPARATELY) (CAS 115-86-6)

**Regulations on the Control over Safety of Dangerous Chemicals**

Not regulated.

**Provision on the Environmental Administration of New Chemical Substances****China Inventory of Existing Chemical Substances**

| Country(s) or region | Inventory name                                             | On inventory (yes/no)* |
|----------------------|------------------------------------------------------------|------------------------|
| China                | Inventory of Existing Chemical Substances in China (IECSC) | Yes                    |

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**Other regulations**

This safety data sheet conforms to the following laws, regulations and standards:  
Measures for the Safe Use of Chemicals in Workplaces  
General Rules for Preparation of Precautionary Labels for Chemicals (GB15258-2009 )  
Regulations on Labor Protection in Workplaces Where Toxic Products Are Used  
Packing Symbol of Dangerous Goods(GB190-2009)  
Regulations on the Control over Safety of Dangerous Chemicals  
Safety Data Sheet for Chemical Products - Content and Order of Sections (GB/T 16483-2008)  
Packing - Pictorial Marking for Handling of Goods (GB/T191-2009)

**China. National Catalogue of Hazardous Wastes**

SILICA, AMORPHOUS, FUMED, CRYSTAL-FREE (CAS 112945-52-5)

**International regulations****Stockholm Convention**

Not applicable.

**Rotterdam Convention**

Not applicable.

**Montreal Protocol**

Not applicable.

**Kyoto protocol**

Not applicable.

**Basel Convention**

Not applicable.

**SECTION 16 Other information****References**

EPA: AQUIRE database  
GB6944-2012: Classification and Code of Dangerous Goods.  
GB12268-2012: List of Dangerous Goods.  
NLM: Hazardous Substances Data Base  
US. IARC Monographs on Occupational Exposures to Chemical Agents

**Disclaimer**

Nye Lubricants, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

**Revision information**

This document has undergone significant changes and should be reviewed in its entirety.