





SAFETY DATA SHEET

| Product Name: | PPE |
|-------------------------------------|--|
| Hitachi Hydraulic Oil Super EX 46HN |     |

Revision Date: 10-Apr-2015

Revision Number: 3

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name: Hitachi Hydraulic Oil Super EX 46HN

Other means of identification

Product Code: 3220-021A

Synonyms: Not available

1.2 Recommended use of the chemical and restrictions on use

Recommended Use: Hydraulic Oil

Uses advised against: No information available

1.3. Details of the supplier of the safety data sheet

Manufactured by: Idemitsu Lubricants America Corporation
701 Port Rd.
Jeffersonville, IN. 47130
Telephone: 812-285-8234
Fax: 812-285-8243
Contact Name: Robin Hutchens
Email: sds@ilacorp.com

Manufactured for: Deere & Company
One John Deere Place
Moline, IL 61265
Telephone: 1-800-822-8262

24 Hour Emergency Phone Number: Within USA and Canada: 1-800-424-9300
Outside USA and Canada: + 1 703-741-5970 (collect calls accepted)

2. HAZARDS IDENTIFICATION

2.1 Classification

This material is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) and WHMIS 2015

| | |
|--|---------------------|
| Acute toxicity - Oral | Not classified |
| Acute toxicity - Dermal | Not classified |
| Acute toxicity - Inhalation (Gases) | Not classified |
| Acute toxicity - Inhalation (Vapors) | Not classified |
| Acute toxicity - Inhalation (Dusts/Mists) | Not classified |
| Skin corrosion/irritation | Not classified |
| Serious eye damage/eye irritation | Not classified |
| Respiratory sensitization | Not classified |
| Skin sensitization | Not classified |
| Germ cell mutagenicity | Not classified |
| Carcinogenicity | Not classified |
| Reproductive toxicity | Category 2 - Testes |
| Specific target organ toxicity (single exposure) | Not classified |
| Specific target organ toxicity (repeated exposure) | Not classified |
| Aspiration toxicity | Not classified |
| None | |

2.2. Label elements



Signal word

Hazard statements

Precautionary Statements - Prevention:

Precautionary Statements - Response:

Precautionary Statements - Storage:

Precautionary Statements - Disposal:

Hazards not otherwise classified (HNOC)

Warning

H361 - Suspected of damaging fertility or the unborn child if swallowed

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

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

P405 - Store locked up

P501 - Dispose of contents/ container to an approved waste disposal plant

Not applicable

2.3 Other information

Other hazards

- May be harmful in contact with skin
- Harmful to aquatic life with long lasting effects

Unknown acute toxicity

1.95% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substances**

Not applicable

3.2 Mixtures**Hazardous components**

| Chemical Name | CAS-No | Weight % |
|--------------------|-----------|----------|
| Tricresylphosphate | 1330-78-5 | <1 |

Non-Hazardous Components

| Chemical Name | CAS-No | Weight % |
|--------------------|---------|----------|
| Mineral Base Stock | MIXTURE | 95-99 |

4. FIRST AID MEASURES**4.1 First Aid Measures**

| | |
|-----------------------------------|--|
| General Advice | If symptoms persist, call a physician. Take a copy of the Safety Data Sheet when going for medical treatment. |
| Eye Contact | Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist. |
| Skin Contact | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician. |
| Inhalation | Move to fresh air in case of accidental inhalation of vapors. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician immediately. |
| Ingestion | Do not induce vomiting without medical advice. If vomiting occurs naturally, have casualty lean forward to reduce the risk of aspiration. Call a physician or Poison Control Center immediately. |
| Protection of First-aiders | Use personal protective equipment. Avoid contact with skin, eyes and clothing. |

4.2 Most important symptoms and effects, both acute and delayed

| | |
|-----------------|---------------------------|
| Symptoms | No information available. |
|-----------------|---------------------------|

4.3 Indication of any immediate medical attention and special treatment needed

| | |
|---------------------------|------------------------|
| Notes to Physician | Treat symptomatically. |
|---------------------------|------------------------|

5. FIRE-FIGHTING MEASURES**Flammable Properties**

NFPA: Class IIIB Combustible Liquid

5.1 Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Unsuitable Extinguishing Media

Do not use a solid water stream as it may scatter and spread fire.

5.2 Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous combustion products:

During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and / or irritating. Combustion products may include and are not limited to, Carbon oxides, Nitrogen oxides (NOx), Oxides of Phosphorus.

5.3 Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures****Personal precautions**

Avoid contact with the skin and the eyes. Use personal protective equipment. Remove all sources of ignition. Avoid breathing vapors or mists. Ensure adequate ventilation.

6.2 Environmental Precautions**Environmental Precautions**

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system.

6.3 Methods and material for containment and cleaning up**Methods for Clean-up**

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Spill Management**LARGE SPILLS**

Eliminate sources of ignition. Prevent additional discharge of material if possible to do so without hazard. For small spills implement cleanup procedures; for large spills implement cleanup procedures and, if in public area, keep public away and advise authorities. Also, if this product is subject to CERCLA reporting (see Section 15 Regulatory Information) notify the National Response Center.

WATER SPILLS

Prevent liquid entering sewers, watercourses, or low areas. Contain spilled liquid with sand or earth. Recover by pumping or with suitable absorbent. If liquid is too viscous for pumping, scrape up. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

7. HANDLING AND STORAGE**7.1. Precautions for safe handling****Handling**

Wear personal protective equipment. Do not breathe vapors or spray mist. Remove and wash contaminated clothing before re-use. Keep away from open flames, hot surfaces and sources of ignition. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).

Safe Handling Advice

Handle in accordance with good industrial hygiene and safety practices.

7.2. Conditions for safe storage, including any incompatibilities

| | |
|---|--|
| Storage | Keep in properly labeled containers. Keep container tightly closed in a dry and well-ventilated place. |
| Incompatible Materials and/or Coatings | No information available |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION8.1 Control parameters

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Other Exposure Guidelines (If Generated)

| Chemical Name | OSHA PEL | ACGIH TLV | ACGIH OEL (STEL) | NIOSH REL TWA | ILA IHG | ILA ROEG | ILA Internal Exposure Limit |
|-------------------|--------------------------|--------------------------|------------------|--|---------|----------|-----------------------------|
| Oil mist, mineral | TWA: 5 mg/m ³ | TWA: 5 mg/m ³ | | TWA 5 mg/m ³ ST 10 mg/m ³ | | | |

8.2. Exposure controls

Appropriate engineering controls Ensure adequate ventilation, especially in confined areas. Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

Personal Protective Equipment

| | |
|---------------------------------------|---|
| Eye/face protection | Safety glasses equipped with side shields are recommended as minimum protection in industrial settings. If splashes are likely to occur wear tight fitting safety goggles and/or face-shield. |
| Skin protection | Wear protective gloves/clothing. Choose the appropriate protective clothing / gloves based on the tasks being performed to avoid exposed skin surfaces. Glove Type: Neoprene, Nitriles. |
| Respiratory protection | If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. |
| General Hygiene Considerations | When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. |

9. PHYSICAL AND CHEMICAL PROPERTIES9.1. Information on basic physical and chemical properties

| | |
|-------------------|-------|
| Appearance | Clear |
|-------------------|-------|

| | |
|---|--------------------------------------|
| Physical State | Liquid |
| Odor | Mild |
| Odor Threshold | No information available |
| pH | Not applicable |
| Melting point / melting range | Not applicable |
| Boiling point / boiling range | No information available |
| Flash Point | 244 °C / 471 °F COC ASTM D92 |
| Evaporation Rate | No information available |
| Flammability Limit in Air | No information available |
| Explosion Limits | No information available |
| Vapor Pressure | No information available |
| Vapor Density (Air) | No information available |
| Density | 0.86 g/cm ³ @ 15°C |
| Solubility | No information available |
| Partition Coefficient (n-octanol/water) | No information available |
| Autoignition Temperature | No information available |
| Decomposing Temperature | No information available |
| Viscosity | @ 40C = 49.00 cSt; @ 100C = 7.83 cSt |

Other Information

DMSO extract by IP346 Less than 3.0 wt% (mineral oil component only)

10. STABILITY AND REACTIVITY

10.1 Reactivity

Reactivity The product is chemically stable

10.2 Chemical stability

Chemical Stability Stable under recommended storage conditions.

10.3 Possibility of Hazardous Reactions

Possibility of Hazardous Reactions None under normal processing.

Hazardous Polymerization

Hazardous polymerisation does not occur.

10.4 Conditions to Avoid

Conditions to Avoid Heat, flames and sparks.

10.5 Incompatible Materials

Incompatible Materials Strong oxidizing agents.

10.6 Hazardous Decomposition Products

Hazardous decomposition products Thermal decomposition can lead to release of irritating gases and vapors.

11. TOXICOLOGICAL INFORMATION

11.1 Information on likely routes of exposure

| | |
|-------------|--|
| Inhalation | May cause irritation of respiratory tract. |
| Eye contact | May cause slight irritation. |

Skin Contact May be harmful in contact with skin.

Ingestion May be harmful if swallowed.

| Chemical Name | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---------------------------------|------------------|---------------------|-----------------|
| Tricresylphosphate 1330-78-5 | 3000 mg/kg (Rat) | 1701 mg/kg (Rabbit) | |

11.2 Information on toxicological effects

Symptoms No information available

11.3 Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Not classified.

Serious eye damage/eye irritation Not classified.

Sensitization Not classified.

Mutagenic effects Not classified.

11.4 Carcinogenicity

Carcinogenicity 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, IARC, OSHA, or ACGIH.

Legend:

NTP: (National Toxicity Program), ACGIH (American Conference of Governmental Industrial Hygienists) IARC: (International Agency for Research on Cancer), OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive Effects Contains a known or suspected reproductive toxin.

STOT - single exposure Not classified.

STOT - repeated exposure Not classified

Aspiration hazard Not classified.

11.5 Acute Toxicity

Unknown acute toxicity 1.95% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

Product Information (Estimated):

ATEmix (oral) > 5,000 mg/kg
ATEmix (dermal) > 2,000 mg/kg
ATEmix (inhalation-dust/mist) > 5 mg/l

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Ecotoxicity effects

Harmful to aquatic life with long lasting effects. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.

Unknown aquatic toxicity 1.96% of the mixture consists of component(s) of unknown hazards to the aquatic environment

[12.2 Persistence and degradability](#) No information available.

[12.3 Bioaccumulation/Accumulation](#) No information available

[12.4. Mobility in soil](#) No information available

[PBT and vPvB assessment](#) No information available

[12.5 Other adverse effects:](#) No information available

13. DISPOSAL CONSIDERATIONS

Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly, it is the responsibility of the user to determine the proper storage, transportation, treatment and/or disposal methodologies for spent materials and residues at the time of disposition.

To minimize exposure, see Section 8 (Exposure Controls/Personal Protection) of the SDS.

Waste Disposal Method This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated packaging Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

DOT Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

| | |
|---------------|---|
| TSCA | All ingredients are on the inventory or exempt from listing |
| DSL | All ingredients are on the inventory or exempt from listing |
| NDSL | Not Listed |
| EINECS | Does not comply |
| ELINCS | Not Listed |
| ENCS | Does not comply |
| CHINA | All ingredients are on the inventory or exempt from listing |
| KECL | All ingredients are on the inventory or exempt from listing |

| | |
|----------------------|---|
| PICCS | All ingredients are on the inventory or exempt from listing |
| AICS | All ingredients are on the inventory or exempt from listing |
| NZIoC | Does not comply |
| Mexico (INSQ) | Does not comply |

USA**Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazardous Categorization

| | |
|--|-----|
| Acute Health Hazard | Yes |
| Chronic Health Hazard | Yes |
| Fire Hazard | No |
| Sudden Release of Pressure Hazard | No |
| Reactive Hazard | No |

CERCLA/SARA 302 & 304

Section 302 & 304 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 355.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any HAPs.

State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals

State Right-to-Know

| Chemical Name | CAS-No | New Jersey |
|--|---------------|-------------------|
| Petroleum distillates, hydrotreated heavy paraffinic | 64742-54-7 | X |

New Jersey Worker and Community Right-to-Know Act:

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Hydraulic Oil)

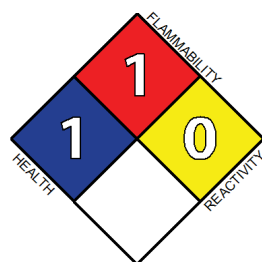
Canada

This material has been classified in accordance with the WHMIS 2015 regulation

| Chemical Name | CAS-No | Weight % | NPRI |
|---|---------------|-----------------|-------------|
| 2,6-di-tert-butyl p-cresol | 128-37-0 | <1 | Listed |
| distillates (petroleum), hydrotreated light | 64742-47-8 | <0.1 | Listed |
| Diphenylamine | 122-39-4 | <0.001 | Listed |

Legend

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATIONNFPA

Health: 1

Flammability: 1

Instability 0

Prepared By

Robin Hutchens

Revision Date:

10-Apr-2015

Revision Summary:

Reproductive toxic Cat. 2 (Repr. Cat. 2)
SARA 311/312 Hazard change
GHS SDS format
Hazard Statements

Disclaimer:

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet