



# 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**

<b>General Advice</b>	If symptoms persist, call a physician. Take a copy of the Safety Data Sheet when going for medical treatment.
<b>Eye Contact</b>	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.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
<b>Inhalation</b>	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.
<b>Ingestion</b>	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.
<b>Protection of First-aiders</b>	Use personal protective equipment. Avoid contact with skin, eyes and clothing.

**4.2 Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	No information available.
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**4.3 Indication of any immediate medical attention and special treatment needed**

<b>Notes to Physician</b>	Treat symptomatically.
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**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

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

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 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 <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>		TWA 5 mg/m <sup>3</sup> ST 10 mg/m <sup>3</sup>			

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**

<b>Eye/face protection</b>	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.
<b>Skin protection</b>	Wear protective gloves/clothing. Choose the appropriate protective clothing / gloves based on the tasks being performed to avoid exposed skin surfaces. <b>Glove Type:</b> Neoprene, Nitriles.
<b>Respiratory protection</b>	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.
<b>General Hygiene Considerations</b>	When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use.

**9. PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Clear
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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 <sup>3</sup> @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

<b>TSCA</b>	All ingredients are on the inventory or exempt from listing
<b>DSL</b>	All ingredients are on the inventory or exempt from listing
<b>NDSL</b>	Not Listed
<b>EINECS</b>	Does not comply
<b>ELINCS</b>	Not Listed
<b>ENCS</b>	Does not comply
<b>CHINA</b>	All ingredients are on the inventory or exempt from listing
<b>KECL</b>	All ingredients are on the inventory or exempt from listing



<b>PICCS</b>	All ingredients are on the inventory or exempt from listing
<b>AICS</b>	All ingredients are on the inventory or exempt from listing
<b>NZIoC</b>	Does not comply
<b>Mexico (INSQ)</b>	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**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	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**

<b>Chemical Name</b>	<b>CAS-No</b>	<b>New Jersey</b>
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)

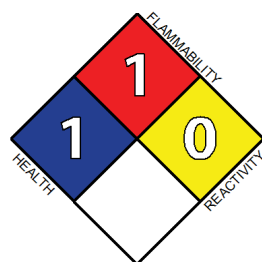
**Canada**

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

<b>Chemical Name</b>	<b>CAS-No</b>	<b>Weight %</b>	<b>NPRI</b>
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 INFORMATION**NFPA

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**