

# MATERIAL SAFETY DATA SHEET

Required under OSHA'S Hazard Communication Standard 29CFR1910-1200

APPROVAL DATE : 22/06/05

IDENTITY(As used on Label and list)  
NEW DEFRIX OIL No. 2

## Section 1

Manufacturer's Name

Sanwa Chemical manufacturing Co.,Ltd

Telephone Number for information

081-045-778-2331 (Japan)

Address

12-9,Torihama-cho,Kanazawaku,Yokohama-city,Kanagawa 236-0002 Japan

## Section 2 – COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients present at or above 0.1wt% (classified as toxic or very toxic)  
or 1 wt%(classified as harmful, irritant or corrosive).

HAZARDOUS INGREDIENT	APPRXIMATE CONCENTRATION
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None

JAPANESE COMPOSITION INFORMATION

Labour Safety Law :

169 Mineral oil

WT%

90 - 100%

PRTR LAW

Not Applicable.

WT%

## Section 3 – HAZARD IDENTIFICATION

This product consists of high refined base oils with additives.

It is of low oral and dermal toxicity and under normal conditions of use should present no significant health hazards. However, in common with most mineral oils, prolonged and repeated skin contact may cause dermatitis.

Handling precautions should be strictly observed.

## Section 4 – FIRST AID

INHALATION :

At ambient/normal handling temperatures, inhalation of vapors is normally not a problem.

If overexposed to oil mist, remove from further exposure.

Administer artificial respiration if breathing is irregular or has stopped.

Get prompt medical attention.

SKIN CONTACT :

No adverse effects due to skin contact are expected.

## EYE CONTACT

Rinse immediately with plenty of water until irritation subsides.  
If irritation persists, obtain medical advice.

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## INGESTION :

If swallowed, keep at rest and call a physician. DO not induce vomiting unless directed to do so  
By a medical professional.

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## Section 5— FIRE-FIGHTING MEASURES

### EXTINGUISHING MEDIA :

Foam, dry chemical powder, carbon dioxide.

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### FIRE AND EXPLOSION HAZARDS :

Combustible material, low hazard. The product can from flammable mixtures or can burn only on heating above the flash point. However, minor contamination by hydrocarbons of higher volatility may increase the hazard.

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### SPECIAL FIRE-FIGHTING PROCEDURES :

Water fog or spray, to cool fire-exposed surfaces(e.g. containers) and to protect personnel, should only be used by personnel trained in fire fighting.  
Cut off “fuel” ; depending on circumstances, either allow the fire to burn out under controlled conditions or use foam or use foam or dry chemical powder to extinguish the fire.  
Respiratory and eye protection required for fire fighting for fire fighting personnel exposed to fumes or smoke.

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### HAZARDOUS COMBUSTION PRODUCTS :

Smoke, and carbon monoxide may be formed in the event of incomplete combustion.

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## Section 6— ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS : See Section 8.

### LAND SPILL :

Shut off source taking normal safety precautions. Prevent liquid from entering sewers, water courses or low lying areas ; advise the relevant authorities if it has, or if it contaminates soil / vegetation. Take measures to minimize the effects on ground water.

Recover by skimming or pumping using explosion-proof equipment, or contain spilled liquid with booms, sand, or other suitable absorbent and remove mechanically into containers. If necessary, dispose of adsorbed residues as directed in Section 13.

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### WATER SPILL :

Confine the spill immediately with booms. Warn other shipping. Notify port and other relevant authorities.

Remove from the surface by skimming or with suitable absorbents. Disperse the residue in unconfined waters, if permitted by local authorities and environmental agencies.

## Section 7— HANDLING AND STORAGE

Store the product in cool, well ventilated surroundings, well away from sources of ignition.

Provide suitable mechanical equipment for the safe handling of drums and heavy packages.

Electrical equipment and fittings must comply with local regulations regarding fire prevention with this class of product.

LOAD / UNLOAD TEMPERATURE deg.C : Ambient to max.40C

STORAGE TEMPERATURE deg.C : Ambient to max.40C

SPECIAL PRECAUTIONS :

Keep containers closed when not in use.

Prevent small spills and leakages to avoid slip hazard.

Take extreme care to avoid contamination by other products and materials.

## Section 8— EXPOSURE CONTROLS AND PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMIT :

5 mg/m<sup>3</sup> for oil mists(TWA,8h – workday)recommended based upon the ACGIH

TLV(Analysis according to US NIOSH Method 5026, NIOSH Manual of Analytical Methods,3<sup>rd</sup> Ed.)

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PERSONAL PROTECTION :

In open systems where contact is likely, wear safety goggles, chemical resistant overalls, and chemically impervious gloves.

Where only incidental is likely, wear safety glasses with side shields. No other special precautions are necessary provided skin / eye contact is avoided.

When concentrations in air may exceed the occupational exposure limit, and where engineering,

Work practices, or other means of exposure reduction are not adequate, approved respirators may be required.

## Section 9— PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE / ODOUR :

Clear light colored liquid, petroleum hydrocarbon odor.

DENSITY, g/ml : 0.87 at 15 deg. C

BOILING RANGE : Data not available.

VISCOSITY, mm<sup>2</sup>/S : 31.4 at 40 deg. C Range .27.3 – 31.8

VAPOUR PRESSURE, kPa : Non-volatile

VAPOUR DENSITY AT 1 BAR(Air=1) : >5. Heavier than air

EVAPORATION RATE(n-butyl acetate=1) : Non-volatile

SOLUBILITY IN WATER : Negligible

pH : Not Applicable.

FLASH POINT : >200 deg. C METHOD : COC

FLAMMABILITY LIMITS IN AIR, % BY VOL :

LEL : 0.9 UEL : 0.7 Approx.

AUTOIGNITION TEMPERATURE : Data not available.

PARTITION COEFFICIENT n-octanol/water : Data not available.

Section 10—STABILITY AND REACTIVITY

STABILITY (THERMAL, LIGHT, ETC) : Stable

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CONDITIONS TO AVOID :

Keep away from heat sources, open flames and other sources of ignition.

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INCOMPATIBLE MATERIALS :

Avoid contact with strong oxidants such as liquid chlorine and concentrated oxygen.

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HAZARDOUS DECOMPOSITION PRODUCTS :

Product does not decompose at ambient temperature.

Section 11—TOXICOLOGICAL INFORMATION

EFFECTS OF OVER EXPOSURE :

INHALATION :

Negligible hazard at ambient/normal handling temperatures.

Elevated temperatures or mechanical action may form vapours, mists, or fumes which may be irritating to the eyes, nose, throat, and lungs.

Avoid breathing vapours, mists, or fumes.

SKIN CONTACT :

Low order of acute toxicity.

Prolonged or repeated contact may lead to mild skin irritation.

EYE CONTACT :

Slightly irritating, but does not injure eye tissue.

INGESTION :

Low order of acute/systemic toxicity.

CHRONIC :

Contains lubricating oil base stocks. Base oils of similar composition and refining history have exhibited no carcinogenic activity in laboratory animals.

TOXICITY DATA :

ACUTE :

No test data are available for the completed formulated product. The potential health hazards were therefore derived from what is generally known of the toxicity of the base oils and the additives, taking into account the concentrations at which they are present. The general effects of mineral oils of this type are well known and are described in numerous publications including CONCAWE Report 5/87 "Health Aspects of Lubricants" .

CHRONIC :

Although there is no specific test data on the base oil components, the base oil would not exhibit carcinogenic potential based upon what is known of the toxicity of base oils in general.

## Section 12—ECOLOGICAL INFORMATION

In the absence of specific environmental data for this product, this assessment is based on information for general hydrocarbon components found in lubricant mineral oils. Lubricant mineral oils, immediately following a release into the environment, will remain largely on the soil surface, and in water, will remain largely on the water surface.

Based on chemical/physical information from the literature for this product category, no harmful effects to terrestrial or aquatic habitats would be expected. This product is expected to be resistant to biodegradation and to persist in the environment.

This product may contain additives for which no environmental data is available. Hence, the above Assessment concerns the base oil(s) only.

## Section 13—DISPOSAL CONSIDERATIONS

Collect and dispose of waste of waste product at an authorized disposal facility, in conformance with national and local regulations, and in accordance with EEC Directives on the disposal of waste oil.

## Section 14—TRANSPORT INFORMATION

USUAL SHIPPING CONTAINERS :

Drums, pails.

TRANSPORT TEMPERATURE deg. C : Ambient to max. 40C

JAPANESE TRANSPORT REGULATIONS

Indicate Product Name, Quantity, Danger Class, and "No Fire" on transport container and packing.

When transport is in excess of the quantity designated, indicate "Danger" on front and rear ends of the vehicle and provide a fire extinguishing device.

For land transport, the height of the pile should be less than 3 meters.

Do not load together with dangerous substance Class 1 or Class 4.

In addition, follow every applicable law and regulation.

## Section 15—REGULATORY INFORMATION

DANGEROUS SUBSTANCES/PREPARATIONS CLASSIFICATION :

Not regulated

Refer to your national legislation implementing the EC Directive 91/155/EC

JAPANESE REGULATORY INFORMATION

Law Concerning the Examination and Regulation of Manufacture ;

act. : of Chemical Substances.

Fire Law : Note 200 < F.P. < 250

Dangerous substance, CL4, No.4

Water Pollution Control Law

Oil effluent regulation (5mg/1)

Water Pollution Control Law

Oil effluent regulation (Banded as principle)

Sewage Water Law

Mineral oil effluent regulation (5mg/1)

Law on Waste Treatment and Cleaning

Industrial waste regulation

Labour Safety Law Article 57-2 :

169 Mineral oil

PRTR Law Class 1 :

Not Applicable.  
PRTR Law Class 2 :  
Not Applicable.

Section 16—OTHER INFORMATION

The information contained herein has been compiled from data published in the literature. This data is believed to be reliable, but certain values may vary from source to source. This data is not to be construed as absolutely complete. It is the responsibility of the user to determine the best precautions necessary for his/her application. This data only refers to the specific materials designated and to any combinations.