MATERIAL SAFETY DATA SHEET

MIYAGAWA 100SW-R

No. C0307

PRODUCT

SECTION I CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

MIYAGAWA 100SW-R

PRODUCT TYPE

Cutting Oil

MANUFACTURER'S NAME

Nippon Grease Co., Ltd.

ADDRESS

4-11-28, Minami-Senba, Chuo-ku, OSAKA, 542-0081 Japan

TELEPHONE NUMBER

06-6282-5412

EMERGENCY TELEPHONE NUMBER: 078-731-8147

DATE PREPARED

: August 16, 2012

SECTION II COMPOSITION/INFOMATION ON INGREDIENTS

MIXTURE: Base oil and Additives

INGREDIENTS AND COMPONENTS (% by mass):

Highly refined petroleum oil

55 approx.

Chlorine type EP agent

15~20 approx.

Sulfur type EP agent

approx. 10~15

Surface active agent

approx. 10~15

UN CLASS AND UN NUMBER:

SECTION III HAZARDS IDENTIFICATION

CLASS NAME OF HAZARDOUS CHEMICALS FOR SDS IN JAPAN:

Not Applicable

SECTION IV FIRST-AID MEASURES

EYE CONTACT: Gently rinse the affected eyes with clean water for at least 15 minutes and consult an

ophthalmologist.

SKIN

Wash the affected area under running water using a mild soap.

INHALATION:

Remove the victim from the contamination immediately to fresh air.

Call a physician if symptom persists.

INGESTION : Do not induce vomiting. Call a physician.

SECTION V FIRE-FIGHTING MEASURES

EXTINGUISH MEDIA: Dry chemical, Foam, Carbon Dioxide

FIRE FIGHTING PROCEDURE:

Fire-fighters should wear self-contained breathing apparatus with full-face

piece operated in positive pressure mode.

SECTION VI ACCIDENTIAL RELEASE MEASURES

Shut off all sources of ignition. Absorb spill with inert materials (e.g., dry sand or earth), then place in a chemical waste container with covers for disposal, using non-sparking tools.

SECTION VII HANDLING AND STORAGE

HANDLING: Avoid direct contact with skin or eyes.

Use in the well-ventilated areas.

STORAGE: Should be kept tightly sealed and stored in doors out of direct sunlight.

Keep away from sources of heat, open flames and sparks.

Avoid long storage periods since the product degrades with age.

SECTION WI EXPOSURE CONTROL / PERSONAL PROTECTION

EXPOSURE The limit for mineral oil is TWA 5mg/m³ as oil mist by ACGIH

ENGINEERING MEASURES

Do not use in areas without adequate ventilation.

EYE PROTECTION:

Wear protective eyeglasses or chemical safety goggles if oil mist generated.

HAND.SKIN.AND

When prolonged or frequently repeated contact could occur, use protective

BODY PROTECTION:

clothing such as butyl rubber, impervious to this material.

(MIYAGAWA 100SW-R)

SECTION IX PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR : Brown color , Transparent liquid, Mild odor

DENSITY (g/cm³) at 15°C: 0.96

SOLUBILITY IN WATER Almost 100% MELTING POINT °C NA(Liquid) DROPPING POINT °C : NA(Liquid)

BOILING POINT °C NA(Not applicable) (High)

SECTION X PHYSICAL HAZARD (STABILITY AND REACTIVITY)

STORAGE STABILITY: This product is stable under normal storage.

Strong oxidizing agents.

INCOMPATIBILITY:

DECOMPOSITION PRODUCTS: Carbon oxides, Sulfer oxides, Chlorine oxides, etc.

POLYMERIZATION: Will not occur. FLASH POINT (METHOD USED) °C: 164 (COC)

SECTION X I TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: Inhalation No data as product

> Oral No data as product

CORROSIVE AND IRRITANT PROPERTIES: If prolonged or repeated skin contact occurs, may cause skin irritation.

If eye contact occurs, may cause eye irritation.

SECTION XII ECOLOGICAL INFORMATION

No known ecological data.

SECTION XIII DISPOSAL CONSIDERATION

Waste must be disposed of in accordance with federal, state and local environment control regulations.

SECTION XIV TRANSPORT INFORMATION

Keep away from oxidizing materials and source of ignition.

Dangerous substance Class 4-Petroleum grade No.3 Japan Fire Protection Law:

UN Recommendations on the Transport of Dangerous Goods: Non dangerous substance

Follow all regulations in your country.

SECTION XV REGULATORY INFORMATION

Follow all regulations in your country.

SECTION XVI OTHER IMPORMATION

REFERENCES:

- 1) JARC MONOGRAPHS ON THE EVALUATION OF THE CARCINOGENIC RISK OF CHEMICALS TO HUMANS
- 2) Material Safety Data Sheet guidebook (English) (Japan Chemical Industry Association Information Center)

This Material Safety Data Sheet was prepared on the basis of materials' information, and data obtained at present by our company. To the best of our knowledge, the information contained here in is accurate.

Final determination of suitability of all material is the sole responsibility of the user.

All materials may present unknown hazards and should be used in caution.

The information herein is given in good faith, but no warranty, express or implied, is made.