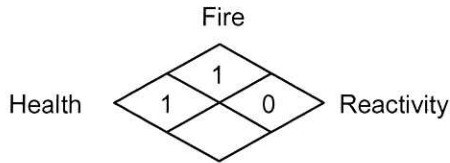


MATERIAL SAFETY DATA SHEET

MSDS No. : 1704

DATE PREPARED: 2013/ 2 / 13



NFPA HAZARD RATING

- 4 -- Extreme
- 3 -- Height
- 2 -- Moderate
- 1 -- Slight
- 0 -- Insignificant

• • CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : FS2

SUPPLIER : LUBE CORP.

ADDRESS : HORIZON1,3-30-16,NISHIWASEDA,SHINJUKU-KU,TOKYO,  
169-0051 JAPAN

TELEPHONE NUMBER : 03-3204-8431

EMERGENCY TELEPHONE NUMBER : 0296-75-4611

• • • • • COMPOSITION • INFORMATION ON INGREDIENTS • • • • •

CHEMICAL FAMILY : Lubricating Grease.

FORMULA : not applicable

COMPONENTS :

NAME	CONTENTS (%)
Base oil (Refined mineral oil)	80 - 90
Thickener (Lithium soap)	<10
EP additives (Containing molybdenum, zinc compound)	<5
Additives	<5

HAZARDOUS INGREDIENTS

NAME	CAS No.	CONTENTS (%)
Molybdenum compound	72030-25-2	1 - 3
Zinc compound	mixture	2 - 5

See Section 8 for exposure limits (if applicable)

• • HAZARDOUS IDENTIFICATION

CLASS NAME OF HAZARDOUS CHEMICALS FOR SDS IN JAPAN Not applicable

- PHYSICAL AND CHEMICAL HAZARDS : Not applicable
- ADVERSE HUMAN HEALTH EFFECTS : Prolonged and repeated contact may cause skin irritation.
- ENVIRONMENTAL EFFECTS : No data available.

---

• • FIRST AID MEASURES

---

EYES : Immediately flush with water for at least 15 minutes. Get medical attention.

SKIN : Remove excess with cloth or paper and wash area thoroughly with soap and water.

INGESTION : Consult a physician. Do not induce vomiting.

INHALATION : Keep the victim warm and quiet. Remove the victim from the contamination  
Immediately to fresh air.

NOTE TO PHYSICIANS : Supportive care. Treatment based on judgment of the physician in  
response to reactions of the patient.

---

• • • FIRE FIGHTING MEASURES

---

FLAMMABLE PROPERTIES :

- FLASH POINT :  $\geq 200^{\circ}\text{C}$                       METHOD : Seta Flash Method
- FLAMMABLE LIMITS : LFL: N/A                      UFL: N/A
- AUTOIGNITION TEMPERATURE : no data available
- HAZARDOUS DECOMPOSITION PRODUCTS : Thermal decomposition and combustion may  
produce carbon monoxide and/or carbon dioxide.

\* N/A : Not applicable.

EXTINGUISH MEDIA : Dry chemical, Water fog, CO<sub>2</sub>, Foam, Sand/Earth

FIRE FIGHTING INSTRUCTIONS : Dense smoke. Fire fighter wear an approved self-contained  
breathing apparatus. Do not use water except fog.

---

• • • ACCIDENTAL RELEASE MEASURES

---

PROCEDURE FOR CLEAN-UP : Transfer bulk of mixture into another container. Absorb residue  
with an inert material such as earth, sand and vermiculite.  
Sweep up and dispose solid waste in accordance with local, state and federal regulations.

WASTE DISPOSAL : Dispose of in accordance with all applicable federal, state and local  
regulations.

---

• • HANDLING AND STORAGE

---

HANDLING : Contact with eye may cause irritation. Use protective glasses or other devices to avoid  
contact with eyes. Contact with skin may cause irritation. Use protective gloves to avoid skin  
contact.

Do not swallow. (Eating product cause diarrhea and vomiting.)

Wear gloves to avoid injury on hands at opening the container.

Keep out reach of children.

STORAGE : Keep container closed until ready for use. Storage away from fire source or  
sunlight and in cool dry area.

---

**••• EXPOSURE CONTROLS• PERSONAL PROTECTION**


---

CONTROL PARAMETERS :Oil mist, mineral: ACGIH TLV (2007): TWA 5mg/m<sup>3</sup>ENGINEERING MEASURES : nonePERSONAL PROTECTIVE EQUIPMENT :

- RESPIRATORY PROTECTION : Wear a gas mask (for organic gas), if necessary.
- EYE PROTECTION : Chemical safety goggles and if handled hot, full face shield.
- HAND AND BODY PROTECTION : Protective gloves, rubber or plastic oil resistant.
- OTHER PROTECTIVE EQUIPMENT : none

---

**••• PHYSICAL AND CHEMICAL PROPERTIES**


---

• FORM	Semi-solid	• ODOR :	Slight odor.
• COLOR	Green		
• VAPOR PRESSURE	N/A	• VAPOR DENSITY(AIR=1) :	N/A
• SPECIFIC GRAVITY(H <sub>2</sub> O=1):	0.91 (25°C)	• EVAPORATION RATE	Slower
• SOLUBILITY IN WATER	Negligible	(n-Butyl Acetate=1)	
• SOLUBILITY IN ---- :	N/A	• FREEZING POINT :	N/A
• PH :	N/A	• VISCOSITY :	N/A
• BOILING POINT :	N/A		
• MELTING POINT(Dropping Point) :	≥ 180 °C		

\* N/A : Not applicable.

---

**••• STABILITY AND REACTIVITY**


---

- STABILITY :(CONDITION TO AVOID) Product is stable under normal condition. Avoid over heating.
- INCOMPATIBILITY : ( SPECIFIC MATERIALS TO AVOID) Strong oxidizers such as hydrogen peroxide, bromine, and chromic acid.
- HAZARDOUS DECOMPOSITION PRODUCTS : Oxides of lithium, sulfur, phosphorus, molybdenum, zinc, nitrogen.
- HAZARDOUS POLYMERIZATION : none
- REACTIVITY WITH WATER : none

---

**••• TOXICOLOGICAL INFORMATION**


---

- CORROSIVE AND IRRITANT PROPERTIES : No data available
- ALLERGENIC AND SENSITIZING EFFECTS :No data available
- ACUTE TOXICITY : Refined mineral oil LD50 Acute oral 5<g/kg(rat)
- SUB-CHRONIC TOXICITY : No data available
- CHRONIC TOXICITY : Prolonged and repeated skin contact may cause irritation.
- CARCINOGENIC EFFECT : Not listed IARC,NTP,ACGIH.
- MUTAGENIC EFFECTS : No data available
- EFFECTS ON THE REPRODUCTIVE SYSTEM : No data available
- TERATOGENIC EFFECTS : No data available

---

• • • ECOLOGICAL INFORMATION

---

- BIODEGRABILITY : No data available
- BIOACCUMULATION : No data available
- FISH TOXICITY : No data available

---

• • • DISPOSAL CONSIDERATION

---

WASTE DISPOSAL METHOD : Incinerate in accordance with applicable regulation.

ATTENTION : Do not use pressure to empty this container. When empty, container may have vapor or product residue. Do not cut, puncture or weld on near the drum.

---

• • • TRANSPORT INFORMATION

---

TDG : Not applicable  
DOT : Not applicable  
UN No. : Not applicable  
FIRE SERVICE LAW (JAPAN) : Not applicable  
LAND(RID/ADR): Not regulated for rail/road transport  
SEA(IMO/IMDG): Not regulated for sea transport  
AIR(ICA/O/IATA): Not regulated for air transport

---

• • • REGULATORY INFORMATION

---

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

Regulatory information with regard to this product in your country or your region should be examined by your own responsibility.

CEPA (Canadian Environmental Protection Act) and US TSCA (Toxic Substances Control Act):

All components of this product are listed on the Canadian DSL (Domestic Substances List) and TSCA inventory of Chemical Substances.

Canadian WHMIS Classification : Non-hazardous

US OSHA (Occupational Safety and Health Act):

This product is hazardous according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200, since this product contains OSHA Hazardous Substances; Molybdenum compound.

US CERCLA (Comprehensive Environmental Release, Compensation & Liability Act):

Zinc compounds no RQ is assigned to this generic or broad class.

US SARA (Superfund Amendment & Reauthorization Act ) Title III:

This product contains no Extremely Hazardous Substances.

SARA Hazard Categories (311/312): None

SARA Toxic Release Inventory (TRI) (313): Zinc compounds

---

• • • OTHER INFORMATION

---

REFERENCE : CMA Interim Guideline for the Preparation of MSDS.  
Chapter 7 : MSDS Examples.  
ACGIH Threshold Limit Values for Chemical Substances in the Work Environment.  
(2007)

---

This MSDS is an addition and complementary document beside the technical data sheet.  
The information is based upon our knowledge about the product at the date of edition.  
Since we cannot anticipate or control the different conditions under which these information  
or our product may be used, we make no guarantee that recommendations will be adequate for all  
individuals and situations.