

Date Prepared : Dec. 11,2013

MATERIAL SAFETY DATA SHEET**1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION**

COMPANY NAME : Hitachi Chemical Co.,Ltd
 ADDRESS : 1 Mito,Tako-Machi,Katori-Gun,Chiba,289-2247
 JAPAN
 TELEPHONE NUMBER : +81-479-76-5571
 EMERGENCY TELEPHONE NUMBER : +81-479-76-5571
 FAX NUMBER : +81-479-76-5666
 MSDS NUMBER : KGE-10012
 PRODUCT NAME **HITASOL MO-138S**

2. HAZARDS IDENTIFICATION**GHS CLASSIFICATION****PHYSICAL HAZARDS**

Explosive : Classification not possible
 Flammable gases : Classification not possible
 Flammable aerosols : Classification not possible
 Oxidizing gases : Classification not possible
 Gases under pressure : Classification not possible
 Flammable liquids : Classification not possible
 Flammable solids : Classification not possible
 Self-reactive substances and mixtures : Classification not possible
 Pyrophoric liquids : Classification not possible
 Pyrophoric solids : Classification not possible
 Self-heating substances and mixtures : Classification not possible
 Substances and mixtures which, in contact with water, emit flammable gases
 : Classification not possible
 Oxidizing liquids : Classification not possible
 Organic peroxides : Classification not possible
 Corrosive to metals : Classification not possible

HEALTH HAZARDS

Acute toxicity (oral) : Classification not possible
 Acute toxicity (skin) : Classification not possible
 Acute toxicity (inhalation: gas) : Classification not possible
 Acute toxicity (inhalation: vapor) : Classification not possible
 Acute toxicity (inhalation: dust, mist) : Classification not possible

Skin corrosion / irritation	:Classification not possible
Serious eye danger / eye irritation	:Classification not possible
Respiratory sensitization / skin sensitization	: Category 1
Germ cell mutagenicity	:Classification not possible
Carcinogenicity	:Classification not possible
Reproductive toxicity	:Classification not possible
Specific target organ systemic toxicity; single exposure	: Category 2
Specific target organ systemic toxicity; repeated exposure	:Classification not possible
Aspiration hazard	:Classification not possible

ENVIROMENTAL HAZARDS:

Aquatic toxicity; (acute)	:Not classified
Aquatic toxicity; (chronic)	:Classification not possible

GHS LABEL ELEMENTS INCLUDING PRECAUTIONARY STATEMENTS

SYMBOL :   :

SIGNAL WORD : Warning

HAZARD STATEMENT : There is a possibility of causing the allergic skin reaction.
There is a possibility of causing the organ damage.

(The supplementation: It doesn't correspond to the classification of a dangerous preparation of EU.)

PRECAUTIONARY STATEMENTS

【Prevention】

- Do not handle until all safety precautions have been read and understood.
- Avoid inhaling, swallowing, containing to skin and eye. Wear protective gloves / protective clothing / eye protection / face shield.
- Use only outdoors or in a well-ventilated area.
- Do not breath mist / vapor / spray.
- Wash hands thoroughly after handling.
- Contaminated work clothing should not be allowed out of the workplace.
- Avoid release to the environment.
- Keep away from flames.
- Seal up the container.

3.COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE/MIXTURE	: MIXTURE		
CHEMICAL NAME	: Molybdenum disulfide	Lubricating oil	Thickener
SYNONYM	: MoS ₂	_____	_____
%	: 15~25	54~64	13~17
CAS REGISTRY NUMBER	: 1317-33-5	Registered	Registered
UN NUMBER	: N/A	N/A	N/A

4.FIRST-AID MEASURES

- EYE CONTACT** : Splashes of material in the eye will cause irritation.
Irrigate with cold or warm water. SEEK MEDICAL ADVICE.
- SKIN CONTACT** : May cause irritation of sensitive skin.
Wash hands and affected areas with warm water and soap.
- INHALATION** : Remove from exposure area to fresh air immediately.
- INGESTION** : If swallowed, induce vomiting immediately as directed by
medical personnel. SEEK MEDICAL ADVICE.

5.FIRE-FIGHTING MEASURES

- EXTINGUISHING MEDIA** : CO₂, Foam, Dry chemicals
- SPECIFIC HAZARDS WITH REGARD TO FIRE-FIGHTING MEASURES** : Treat as oil
Fire

6.ACCIDENTAL RELEASE MEASURES

The one which becomes a near ignition source removes promptly and prepares machine parts for extinction. Sweep or vacuum material thoroughly and wash floor with soap and water. Containerize for liquid waste disposal.

7.HANDLING & STORAGE

- HANDLING** : After checking container for damages and leaks, load it with care to avoid shock, overturn and dropping, then make sure to prevent cargo crumbling.
Isolate from sparks and flame.
- STORAGE** : Store in warehouse at temp. of 5°C to 40°C.

8.EXPOSURE CONTROL/PERSONAL PROTECTION

- CONTROL PARAMETERS** : ACGIH TLV-TWA 10mg/m³···Molybdenum Insoluble
compound
ACGIH TLV-TWA 5mg/m³···Oil mist, mineral
- ENGINEERING MEASURES** : In case of insufficient ventilation, provide local exhaust ventilation.
- PERSONAL PROTECTIVE EQUIPMENT**
- RESPIRATORY PROTECTION** : Any dust, mist, fume respirator is worn if
necessary though there is no necessary.
- EYE PROTECTION** : Safety goggles or glasses
- HAND,SKIN AND BODY PROTECTION**: **HAND** : Wear PVC gloves
FOOTWEAR: Rubber boots
CLOTHING: Working clothes

9.PHYSICAL & CHEMICAL PROPERTIES

COLOUR	: Metallic gray paste and mild
BOILING POINT	: No data
VAPOUR PRESSURE	: No data
VOLATILE	: N/A
MELTING POINT	: (Dropping point of grease) >250
DENSITY	: No data
INITIAL BOILING TEMP.	: No data
SOLUBILITY IN WATER	: Not soluble

10.PHYSICAL HAZARD(STABILITY & REACTIVITY)
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FLASH POINT	: No data
AUTOIGNITION TEMPERATURE	: No data
UPPER AND LOWER EXPLOSION LIMIT	: No data
FLAMMABILITY	: Inflammable
SPONTANEOUS COMBUSTIBILITY	: No data
REACTIVITY WITH WATER	: No data
OXIDIZABILITY	: No data
SELF-REACTIVITY	: No data
STABILITY & REACTIVITY	: Stable at a normal state.

11.TOXICOLOGICAL INFORMATION

CORROSIVE AND IRRITANT PROPERTIES	: No data
ALLERGENIC AND SENSITIZING EFFECTS	: No data
ACUTE TOXICITY	: Grease : oral administration : LD50 >5g/kg(RAT) (presumption value)
SUB-CHRONIC TOXICITY	: No data
CHRONIC TOXICITY	: No data
CARCINOGENIC EFFECTS	: No data
MUTAGENIC EFFECTS	: No data
EFFECTS ON THE REPRODUCTIVE SYSTEM	: No data
TERATOGENIC EFFECTS	: No data

12.ECOLOGICAL INFORMATION

BIODEGRADABILITY	: No data
BIOACCUMULATION	: No data
FISH TOXICITY	: No data

13.DISPOSAL CONSIDERATION

Improper disposal may be illegal. Refer to applicable federal, state and local regulations.

14.TRANSPORT INFORMATION

Follow after "7.HANDLING & STORAGE"

15.REGULATORY INFORMATION

No data

16.OTHER INFORMATION**REFERENCES**

1. TLVs^R and BEIs^R (ACGIH) (2010)
2. SDS of materials

Informations mentioned here comply with data shown in various technical publications. To take the required safety handling measures, the user should decide to apply these informations on his own responsibility. Informations mentioned here were prepared based on the newest data obtained by our investigation at that time. They are subject to change owing to amendment of laws and regulations, and publication of new results of toxic test and the like.