SDS

Product and company identification:

| Product information:MAX-LUBE TH-22 Heat Transfer Oil | | |
|---|------------------|--|
| Series Numbers:MAX-TH-22 | | |
| Manufacturer or suppler name'Address and telephone:MIN JUNG HONG INC. | | |
| No.39, Tou Kung 6 Road Touliu City Yunlin County TEL:(05)5576016 | | |
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Ingredients identifiable information:

Mixture chemical properties:

| Hazard substances | Concentration(ingre | Hazard | Prepare note |
|--------------------|---------------------|-----------------------|--------------|
| ingredients in | dients percentage) | substancesclassificat | |
| English name | | ion and schema | |
| Heat oil Additive | 3~6 | No(NFPA FIRE=1) | |
| Light Neutral Base | <90 | | CAS No.: |
| Oil | | No(NEPA FIRE=1) | 64742-54-7 |
| Alkylated phenol | 0.1 ~ 0.9 | No(NEPA FIRE=1) | CAS No.: |
| | | | 121158-58-5 |

Hazard identification material:

Hazard Waming for Health:

Damage degree depends on the length of time 'contact the exposure and first-aid speed and complete processing measures.

Eyes: to the eyes can cause stimulation reactions.

Skin: cause skin is unwell.

Inhalation: when heating the items to excessive breathe air can cause headaches' dizziness 'digestive disorders vomiting'"

Cough 'nose pain' sore throat 'chest pain.

Eating: without the effective material

The environmental impact :with out the effective material.

Physical and chemical hazard: the oil droplets steam may produce respiratory stimulation.

Special harm: no significant special hazards.

The main symptoms:

Eyes: stimulate an eye.

Skin: can cause inflammation 'red' skim 'swelling, etc.

Inhalation: heating the items can cause excessive inhaled headache 'dizziness'

vomiting 'digestive disorders

Cough 'nose pain' sore throat 'chest pain.

Eating: will be on respiratory produce stimulation and stomach discomfort 'diarrhea, etc.

Items harm classification:No(NFPA FIRE=1)

First aid measures:

The method of first aid exposure to different ways:

sucked into: hurry up will take away from more exposed area to fresh air place, with •

sucked into: hurry up will take away from more exposed area to fresh air place, with oxygen or similar device for life saving Implementation of artificial respiration, such as symptoms for hospital immediately.

- skin contact: by a loose contaminants. Use soap and water cleaning thoroughly until no chemicals residue (at least 15 to 20 minutes). If symptoms persist in the hospital.
- eye contact: immediately in the faucet or wash the eyes, the nose and open thoroughly flush eyes. If last Pain is sent to the eye doctor place further treatment.
- swallow food: such as miss swallowed the products don't break guide vomit, to the conscious drink 1-2 cups of water. If there are vomiting now Like happen, patients will be keeping the head position below hip to help breathing, immediately send the medical first aid.

The most important symptoms and the damage effect: without the effective material

Emergency workers to the protection:with out the effective material The doctors to hint:with out the effective material

Extinguishing measures:

Apply flame retardant: fire use dry powder (ABC or BC), carbon dioxide, foam and water mist.Big fires in foam and plenty of fine mist.

Fire that may be encountered with special to harm the:

The general burning produce carbon dioxide, moisture and other nitrogen oxide and sulfur, not completely burning will produce Carbon monoxide.

Special fire-fighting program:

Fire fighters need to wear protective equipment and scuba, in the windward fire fighting.

Stop the oil leaking and flow and having flame retardant, isolation leaking all the fire area, if did not send dangerous may, into the disaster zone try to remove storage vessel. Use water mist cooling with the disaster into containers, until the fire out. Pay

attention to water spray, stand in the far away from the store at the end of the slot. Please note that this oil easy and antioxidant react vigorously.

Try to use automatic or fixed fire extinguishing equipment, personnel avoid into the disaster zone.

If not leaking area on fire, water mist steam in scattered, and protected against the material of the spill personnel security, not to directly spray mist leaked out of the oil level.

Firefighters special protective equipment: carry appropriate protective device or individuals with type breath from the equipment.

Leakage processing method

Personal note: personnel should wear proper with personal protective equipment (reference eight), leak processing.

Environmental regulation: if there's no danger to stop when the liquid leakage, to remove the fire. Supervise the personnel to leave as soon as possible,

Isolated area and banned in person harm to enter. Into the room before airtight, need to fully ventilated. Was about reading

Exposure control personal protective of the preventive measures, including

further prevention of air, soil, surface water, or Pollution in the groundwater, etc. Cleaning method: first remove the fire of the nearby.

The small leak: use sand or other than flammable materials absorption material. Will leak oil collection in the appropriate capacity

Containers.

2. The amount of a leak: the disposition of dam as later. If feasible, remove contaminated soil. To a large number of the spill disposal, in accordance with the "soil and groundwater pollution treatment method" and the provisions of the relevant procedures.

Safe handling and storage method

Disposal: steam by breathing into the lungs, do not contact with eyes, skin, or clothing, etc. Don't breathe evaporate device,Oil mist, lampblack or dust, etc. Wear the protection of the equipment or coat the following day "exposed the prevention measures" mentioned, clean after operation as far as possible.

The pollution is one thing was again before using, must to be cleaned clean. Use or store the material, do not close to the flame,Sparks, or high fever surface and must be in place of good ventilation

Storage:

1.Storage and work place to be current regulations.

2.Stored in a cool, dry and ventilated.

3.Protect containers and pipeline don't suffers bump or damage: away from combustible.

4.Stored in the security of the qualified container.

5. When not in use containers should be covered and maintain close.

6.And incompatibility material stored separately.

.Exposure controls ,personal protection

| Engineering controls: use appropriate exhaust equipment to keep air concentration of | | | | |
|--|---------------------|---------------------|---------------|-----------|
| zhongyou droplets below the suggested exposure standards. | | | | |
| Controls paramet | Controls parameter: | | | |
| Hazard | Eight hours a day | Short time | Maximum | Biomarker |
| substances | of Average allow | quantity | allowable | |
| ingredients | concentration | Average allow | concentration | |
| | TWA | concentration | | |
| | | STEL | CEILING | |
| Oil droplets (mineral oil) | 5mg/m ³ | 10mg/m ³ | | |

posure degrees standards.

Or put on by breathing respirator.

50 mg/m³: with efficient filter tank of gas mask, any type of face mask.

125 mg/m³: gas mask, with high efficiency filtration of tank high function mask.

250 mg/m³: with efficient filter tank full cover all the bell type of masks, gas masks, and the bell type with type respirator, since With high efficiency filtration of tank

high functional mask.

2500 mg/m³: positive pressure type gas mask.

Flee born with: with efficient filter tank full prover mask, escape with type with the respirator.

Unknown concentration or have immediate harm: any all the bell type positive pressure type gas mask.

• hand protection: wear appropriate the chemicals (NBR) gloves.

• eye protection: don't let the oil into the eyes. Wear chemical goggles. It is in work area provide tight

Nasty washing eyes equipment.

• skin and body protection: wear appropriate the chemicals clothes, immediately remove any in the garment of chemicals

Health cuo lost:

Check safety goggles, resistance to chemicals gloves and clothing, breathing respirators are damaged.

Work is done to replace and cleaning overalls, and inform the cleaning personnel of pollutants harmfulness. And often face will hand with soap and clean water clean. Eat contain vitamin and mineral of nutrition items, regular health checks.

The physical and chemical properties

| Shape: liquid | |
|---------------------------------------|--|
| Bouquet: no special pungent flavor | |
| Boiling point/boiling point range: no | |
| material | |
| Flash point: 230 °C | |
| Test method: open cup | |
| Explosion limit: do not apply | |
| | |
| Steam density: do not apply | |
| Solubility: insoluble in water | |
| 100°C cst : 5.3 | |
| | |
| | |

. Stability and responsive

Stability: under the conditions of steady.

Special conditions may hazard reaction: won't happen the polymerization.

Should avoid the situation: avoid and hot, sparks, flame and other material, incompatible with fire things contact.

Should avoid the material: avoid and acid, strong keep, agents contact.

Harm decomposition products: carbon monoxide, organic volatile and sulfides.

.Toxicological Information

Nasty toxic:

• sucked into the

Base oil: headache, dizzy, breath does not adapt.

The Heat oil Additive: the oil droplets steam may produce respiratory stimulation.

| • skin skin |
|---|
| Base oil: hair follicle inflammation. |
| The Heat oil Additive: to stimulate the skin. |
| • eye set |
| Base oil: stimulate an eye. |
| The Heat oil Additive: stimulate an eye. |
| • eating |
| Base oil: cause stomach upset such as diarrhea. |
| The Heat oil Additive: without the effective material. |
| Local effects: without the effective material ° |
| The sensitivity: without the effective material \circ |
| Slow toxicity or long-term toxic: base oil: |
| • sucked into: repeat or long-term contact with oil may cause fibrosis, lipid |
| pneumonia, and lipid sex granulation is swollen. |
| • skin skin: repeat or long-term contact with oil may cause skin defatted, skin |
| inflammation. |
| • eye eye: repeat or long-term contact with oil may cause conjunctivitis. |
| • eating: without the effective material. |
| |

.Ecological information

The environmental impact/environment may spread: without the effective material.

. Disposal method

The disposal methods:

The pollution will be loaded into the container material can be discarded, the discarded in accordance with the regulations for way.

According to the latest version of "waste clearance method" and other relevant laws and regulations of waste disposal.

If could try to ` will waste product reuse.

A quantity with oil absorption paper after wiping, send to the incinerator

. Shipping material

The international shipping regulation: without the effective material.

The United Nations Numbers: not Numbers

Domestic shipping regulations:

Road traffic safety rules article 84.

Ship dangerous goods loaded rules.

Taiwan railway administration dangerous goods loading and unloading the detailed rules for the implementation of transportation.

Special delivery method and the matters needing attention: without the effective material.

.Regulation Information

TApplicable regulations:

he detailed rules for the implementation of labor safety facilities;

Hazards and hazardous substances general rules;

Organic solvent poisoning prevention rules;

Labor work environment air of harmful substance in allow concentration standard; Road traffic safety rules;

Waste implements cleaning method;

Business waste storage remove processing method and implements standard facilities; Risk management rules of the road transport goods;

Soil and groundwater dyeing syndromes;

.Other information

| | 1. OHS 15037 |
|------------|--|
| References | 2. OHS 50243 |
| | 3. Labor work environment air pests allow concentration standard |
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| prepared | |

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