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Material Safety Data Sheet (MSDS)

PARA-380 Food Grade White Mineral Oil

Section 1: Chemical Name and Manufacturer Information

Chemical Name in Chinese: 白矿油	Chemical Name in English : White mineral Oil
Supplier/Manufacturer: PARAOIL INTERNATIONAL TRADING CO.,LTD.	
CAS.NO.: 8042-47-5	Contact: 86-22-65540660

Section 2: Composition/Information on Ingredients

Composition : Isomeric mixture of n-alkanes	Appearance : Colourless、 Odourless、 Liquid
Formula : Generally represents C_nH_{2n+2}	Solubility: Undissolving in water or alcohol
Main Usage : Lubricant, Drug, Plastic, Plastic product, etc which shall be controlled by the appropriate laws and regulations.	

Section 3: Hazards Overview

Hazard category : This material is not considered as hazardous goods according to the regulation guideline (See Section 15). GB 13690-92 Classification of Common Hazardous Chemicals: Not classified as hazardous goods
Hazards to health: If swallowed by accident, it may be inhaled into the lungs to cause damage to the lungs. Low toxicity. Excessive exposure can cause irritation to the eyes, skin or respiratory system. Subcutaneous injection with pressure may cause severe damage. Note: this product can be applied only with the specific applications defined in Section 1 if there is no consultancy with the experts. It is indicated by the health research that the chemical exposure may cause potential damage to the health depending on the individual condition.

Section 4: First Aid Measures

Skin Contact	Rinse with soap and water. If the product is injected subcutaneous or into any other parts of the human body, the victim must be given medical care by the physician immediately and size of the wound is. To treat with surgical procedures as soon as possible within the several hours after the accident will significantly reduce the final damage even though the initial symptoms are slight or no symptom after the injection with pressure.
Eye Contact	Rinse thoroughly with water. In case of irritation, seek medical attention
Inhale	Avoid further inhale exposure. For those assisting personnel, prevent yourself or others to inhale. Provide sufficient respiratory protection. In

	case of respiratory irritation,dizziness,nausea or unconsciousness,seek medical attention immediately.In case of breath stop,please use mechanical equipments to facilitate the ventilation or apply artificial respiration by mouth.
Ingestion	Seek medical attention immediately.Do not induce vomiting

Section 5:Fire Fighting Measures

Flash point (°C)	【Testing method】 No less than 240°C , 【ASTM D-92】
Flammability Limit (in the air %vol.):	Lower Explosion Limit (LEL): 0.7; Upper Explosion (UEL) : 6.0。
Fire Extinguishing Media:	Suitable fire extinguishing media:water spray,foam,dry reagent(dry powder)or carbon dioxide(CO2).Unsuitable fire extinguishing media:Direct water stream.
Fire Fighting Instructions:	Evacuate the affected area.Prevent the water used for fire fighting or dilution effluent from draining into the river,sewer or drinking water source.The standard protection equipments shall be used by the fire fighters and the self-contained breathing apparatus shall be used in the confined space.The water spray shall be applied to the surfaces exposed to the fire to reduce the temperature and to protect the workforce.
Hazardous Combustion Products:	Thick smoke,acetaldehyde,oxides of carbon,incomplete combustion products.

Section 6:Accidental Release Measures

Notification Procedure:	In case of accidental spill or release,the related administrations shall be notified according to all applicable regulations.
Precautions for Storage and Transportation	The material shall be stored in a cool warehouse with ventilation and without sunshine.Keep away from ignition and heat source. Do not store with oxidants.Provide the fire fighting equipments with the appropriate types and quantity.There shall be emergency equipments and suitable containment material for accidental release in the storage area.
Release Disposal	
Release on Land	The actions can be taken to stop the release in case of no danger.Recycle the material via the pump or using the appropriate absorbent.
Release in water	The actions can be taken to stop the release in case of no danger.The range of the release shall be limited by the immediate usage of oil fence. Send warning to other ships.Remove the material by skimming from the surface or via using appropriate absorbent.Consult the expert before the application of dispersant.The suggestions for the treatment to the water

	release accident or land release accident are provided based on the release condition with the most possibility;However,the appropriate plan applied maybe significantly impacted by the geographic conditon,wind,temperature and wave,flow direction and flow rate(for water release).Therefore,the local experts shall be consulted.Noted:There may be rules or limitations from the local regulations on the plans to be implemented.
Environmental Precaution	Large release:The containment dike shall be built far away from the release area to facilitate the following recycle and disposal.Precent the release material from entering into the water course,sewer,basement or closed area.

Section 7:Handing and Storge

Operation Caution	Closed operation, well ventilation and special training for operators are required, operation procedure should be strictly followed. Inhalation filter-type dust respirator, chemical safety glass, anti-poisoned overall, oil-resistant rubber gloves should be all equipped for operators. Keep away from fire, heat, smoking is strictly prohibited within workspace. Explosion proof type should be considered during ventilated system or equipment selection. Pay attention of steam leakage within workspace. Keep away from oxidant. Handle with care when move package, in case of package damage. Fire-fighting and anti-leakage emergency equipments should also be proper equipped. Harmful chemical residues might still remained in empty contianer.
Preservation Caution	Storage in cool, well-ventilated warehouse. Keep away from fire and heat. Stay away from oxidant. Fire-fighting equipments should be adequately equipped. Anti-leakage emergency equipment and proper receiving material should be also equipped within storage room.

Section 8:Exposure Control and Personal Protection

Exposure Limit/Standard for the Handling of this Product:	In case of oil must,the following air hygiene standard is recommended to be used:The threshold limit value(TLV)by US ACGIH is 5 mg/m ³ ; The Short Tern Exposure Limit(STEL)defined by US ACGIH is 10 mg/m ³ .Note:these limits/standards are for guidance only.The applicable regulations shall be followed.
Engineering Control:	The protection level and the types of the control measures applied will be determined by the potential exposure conditions.The control measures available include:there is no special requirements for the common application environment with the sufficient ventilation.
Personal Protection:	The selection of the personal protection equipments are based on the potential exposure conditions,such as application field,handling,concentration and ventilation,etc.The following information for the protection equipments available for this material is based on the specific usage of this material with the normal application conditions.
Protection of Respiratory System:	If the engineering control facilities can not ensure to maintain the airborne pollutants concentration below a certain level which is sufficient to protect the operator's health,then it is preferred to wear the authorized respirator.The selection,usage and maintenance of the respirator must conform to the requirements of the rules(if applicable),The available types of the respirators for this material

include:there is no special requirements for the common application environment with the sufficient ventilation.The respirator applied for organic vapor shall be used.The self-contained respirator with the authorization can be used with the positive pressure in the environment with high airborne concentration.The self-contained respirator with escape cylinder is suitable for the condition with less oxygen,poor alarm properties of the gas/vapor,or overload of air filter.

Protection of Hands:Any information provided for the specific gloves is based on the literatures published and the data from gloves manufacturer.The cycle-time for the usage of gloves will be greatly impacted by the operation environment;Inspect and replace the broken and damaged gloves.The types for the handling of this material include:No Protection is required under normal application conditions.Use nitrile gloves.

Protection of Eyes:In case of potential exposure,it is suggested to wear goggles with side protection.

Protection of Skin and Body:Any specific information provided here for the protection clothing is based on the literature published or the manufacture's data.The available types of working uniform for this material include:there is no special protection for the skin required under the typical conditions.Maintain good personal hygiene practice and the precautions shall be taken to avoid skin contact.

Hygiene measures:Keep good personal hygiene practice,such as washing hands after the handling of this material,and washing hands prior to eating,drinking and/or smoking.Wash the working uniform and protection equipments routinely to clear the pollutants.Discard the contaminated shoes and clothing which can not be cleaned,Build good living habits.

Environment Control:See Section 6,7,12 and 13.

Section 9:Physical and Chemical Properties

Typical Property : no color,no odor,clear oily liquid

Critical Health, Safety and Environment Properties:

Relative Density (@20°C) : 0.83~0.86

Flash point , (open cup) : Not less than240°C 【ASTM-D92】

Flammability Limit (in the air,%vol.) :Lower Explosion Limit (LEL) , 0.7; Upper Explosion Limit (UEL) : 6.0。

Vapor Density (air = 1) : > 2 @ 101 kPa;

Vapor Pressure : < 0.013 kPa (0.1 mm Hg) , @20 °C;

PH : Not applicable;

Log Pow(octanol/water Partition) : > 3.5;

Solubility in water:Negligible

KVIS : 68~78 @ 40°C;

Oxidant property:See Section 3,15,and 16

Pour Point : ≤-12°C; 【ASTM D-97】

Limit of Polycyclic aromatic hydrocarbons: Not more than 0.1 【ASTM D2269】

Section 10: Stability and Reactivity

Stability: This material is stable under normal conditions	Conditions to avoid: Excessive heat, high-energy ignition source
Substances to avoid: Strong Oxidants	Hazardous decomposition products: Do not decompose under environment temperature.
Hazardous Polymerization: Do not occur.	

Section 11: Toxicological Information

Inhale: Toxicity (rat): LC50 > 5000 mg/m ³ , extremely low toxicity, Irritation: no specific data, temperature increasing or mechanical action may cause to form vapor, fog or mist with the irritation to eye, nose, throat or lungs.
Ingestion: Toxicity (rat): LD50 > 52000 mg/kg, extremely low toxicity.
Skin contact: Toxicity (rabbit): LD50 > 1000 mg/kg, extremely low toxicity, Irritation (rabbit): the irritation to the skin under typical temperature can be negligible based on the data.
Eye contact: Irritation (rabbit): It may cause medium and short-time discomfort of eyes based on data.
Chronic toxicity/other impacts: In case of ingestion or omitting of this product, the inhale of small amount of liquid into the lungs may cause chemical pneumonia or pneumoedema. White Oil with low viscosity: Cause no mutation via in vitro experiment. Large oral dosage of medium-low viscosity white oil by some species rat (F-344) can cause slight inflammation of liver, spleen and lymph structure, Also some evidence is discovered that some medium-low viscosity white oil cause damage to the liver. There is also a certain level of accumulation of saturated mineral hydrocarbons in some cell tissues of these animals. The similar impact on other rodents or species are not observed.

Section 12: Ecological Information

Ecological Toxicity: This material is considered as no harm to aquatic organisms.
Mobility: The solubility of this material is low and it can float, It is considered that it can be absorbed on the sediment or the solids within the wastewater.
Biodegradability: This material is considered that it can biodegrade naturally.
Bioconcentration or Bio-accumulation: There is potential bio-accumulation for this material. However, metabolism or physical properties may lower the Bioconcentration or limit the bioavailability.

Section 13: Waste Disposal

National Dangerous Waste Inventory: HW08-Waste Mineral Oil
Suggestion for Waste Disposal: This product is suitable to be used as a fuel within a closed and controlled

incinerator, or be incinerated under the monitoring with very high temperature to prevent the formation of undesirable combustion products.

Warning to the Empty Container: There may be residue within the empty container and it may be dangerous. Do not try to refill the container or to clean the container unless there is appropriate guidance. Drain the empty drum thoroughly and store it well until it is repaired or disposed accordingly. The empty container shall be recycled, repaired or disposed by the appropriate and qualified contracting service or the contracting service with the authorization based on the government regulations. Do not apply pressure, cut, weld, braze, tin soldering, drill, polish or expose these containers to heat source, open fire, sparks, electrostatic or other ignition source. They may explode and cause damage or death.

Section 14: Transportation Information

Land: Not classified for land transportation

China Dangerous Goods Number (CNNO.): Not Applicable

Marine (IMDG): Not classified according to IMDG-Code

Air (IATA): Not classified for air shipment.

Transportation Note: Transport should be preceded by checking whether container integrity, sealing and transportation process to ensure that the container does not leak, did not fall, do not fall, no damage. Strictly prohibited and oxidants, food chemicals mixed mixed operation. Transportation Travel must be thoroughly cleaned, disinfected, or other items shall not be carried. When shipping, equipped with position away from the bedroom, kitchen, and isolated from the cabin, power supply, ignition sources and other parts. Highway transportation according to provisions of the route.

Section 15: Regulatory Information

This material is not hazardous goods according to the hazard standards for physical/chemical properties and health within EC'S hazardous substance/preparation directives.

EU Label: No definition from EC Directives

Safety Recommendation: S62 If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label where possible.

National Laws and Regulations:

Conforming to the requirements of chemicals list of the following countries and regions: AICS, DSL, EINECS, KECI, TSCA, ENCS, IECSC, PICCS

GB13690-92 (Classification and Identification of Common Dangerous Chemicals): Not classified as dangerous goods.

GB 6944-86 (Classification of Dangerous Goods and Product Name Number): Not classified as dangerous goods.

Section 16: Other Information

N/D = Not Determined, N/A = Not Applicable