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药劑

Material Safety Data Sheet

SECTION I – PRODUCT IDENTIFICATION AND USES

Product name	PINE OIL, also commonly called #2 Oil
Applications	Flotation agent for non-ferrous and metalloid ores, serves as a frother. Other varied applications.
Sales representative	LMS Canada

SECTION II – CHEMICAL INGREDIENTS

Main ingredient	Mixture of α terpene, β terpene, and γ terpene. Methyl alcohol of the mixture $\geq 42\%$
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SECTION III – PHYSICAL & CHEMICAL DATA

Physical state	Liquid
Appearance	Light amber to brown oily liquid
Odour	with lilac smell
Vapor pressure	N/A
Vapor density (Air =1)	N/A
Freezing point	N/A
Boiling point	186° C
Evaporation rate	> 1
pH value	neutral material, pH value not available
Specific gravity	0.88 – 0.92

SECTION IV – FIRE AND EXPLOSION

Flammability and precautions

Highly Flammable. Keep away from heat, sparks and naked flames. Use flameproof equipment and fittings to prevent flammability risk. Electrically link and ground metal containers for transfer of product to prevent accumulation of static discharges.

Means of extinction

Caution: Use water spray only while fighting fire may be inefficient. For small fire, use foam, dry chemical, CO₂ or water spray. For large fire, use foam, fog or water spray. DO NOT use water jet. CCl₄ can be used for extinction as well. If safe to do so, move undamaged containers from the fire area. Cool containers with large quantities of water until fire is out. Avoid getting water inside the containers. Fire will produce irritating, poisonous and/or corrosive gases. Gas-tight suits should be worn for maximum protection while combating fire.

Flashpoint	75 ~ 77 ° C
Auto-ignition temperature	Unknown
Explosion data	Product has a low flashpoint, will be easily lit up by heat, sparks or flames. Vapors can form explosive mixture with air. Ensure adequate ventilation to prevent an explosive vapor-air mixture. Vapors can travel a considerable distance to source of ignition and flash back. Most vapors are heavier than air and will accumulate in low or confined areas such as drains, basements, tanks, etc... Liquids are lighter than water. Containers may explode when heated.

SECTION V – STABILITY AND REACTIVITY

Chemical stability	Stable
Solubility	Slightly soluble in water, miscible with alcohol
Incompatibility with other substances	Strong oxidizers

SECTION VI – TOXICOLOGICAL PROPERTIES

Skin contact	Repeat or prolonged skin contact will lead to irritation.
Eye contact	May cause conjunctivitis, corneal burns, ulceration and mucous membrane irritation.
Inhalation	The vapor may be irritant to mucous membranes and respiratory tract, may also cause nausea.
Ingestion	May cause gastric irritation. Toxic in large doses if swallowed, may lead to kidney damage.

SECTION VII – PREVENTIVE MEASURES

Personal protective gear	Suitable protection clothing and footwear are essential. Avoid breathing vapors or mists. Use conventional approved or equivalent respiratory protection equipment based on consideration of airborne concentration and duration of exposure.
Hand	Gloves impervious to moisture and oily liquids.
Eye	Use face shields, chemical goggles or safety glasses with side shields as appropriate protections.
Other	Keep work area well ventilated. Local exhaust system may be required. DO NOT eat, drink or smoke in work area. Wash hands thoroughly after handling this product.

SECTION VIII – FIRST AID MEASURES

Skin	Remove contaminated clothing, flush affected area with water or use oil-absorptive material to gently clean skin. For severe irritation, consult a doctor. Laundry clothing before reusing.
Eye	Hold eyelids open, flush continuously with running water or sterile saline solution for at least 15 minutes. Obtain medical attention immediately.
Inhalation	Move victim to fresh air. Seek medical advice.
Ingestion	Give water or milk to drink. Do not induce vomiting. Seek immediate medical attention.
Other	Eye wash facilities and potable water should be available at workplace.

SECTION IX – STORAGE, SHIPPING & DISPOSAL**Spillage and waste disposal**

Clean up personnel should use suitable clothing and footwear to avoid direct skin contact. Eliminate potential ignition sources. Absorb spill with earth, sand or other non-combustible material. Use clean, non-spark tools to collect spilled material and place it in covered metal or plastic containers for later disposal. Follow local environmental regulations or consult experts for waste disposal.

Handling procedures and equipment

Eliminate all ignition sources within at least 50m. All equipment used for handling must be grounded. Do not touch or walk through this product. When leaking is found, stop it immediately if safe to do so. Prevent entry into waterways, drains and confined areas.

Packing and shipping information

Use metal containers. Use transportation methods for flammable liquid while shipping.

Storage requirement

Store in dry, cool, and well ventilated areas. Store away from heat and ignition sources. Isolate from oxidizing agents and acidic media. Ensure containers are properly closed all the time and properly labeled. Check regularly for spills.

Keep locked up and out of reach of children.

SECTION X – PREPARATION OF MSDS

Prepared and translated by LMS Canada

Last update April, 2006

Note: The information in this Material Safety Data Sheet associates only to the specific material designated herein and does not apply to uses in combination with any other materials or for any other processes. The information given is based on technical data provided by the manufacturer and those publications available when compiling/updating document and we believed to be reliable. It is subject to change or update without notice. Because conditions of applications vary and are beyond our control, it is users' responsibility to obtain safety data for combinations with other materials, or for applications in other processes. Always follow local safety regulations applicable on erection sites.