This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not 'Hazardous' per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

1. PRODUCT AND COMPANY IDENTIFICATION:

MACK BRUSH PRESERVATIVE

Andrew Mack & Son Brush Co., P. O. Box 157 225 E. Chicago St.
Jonesville, MI 49250 517-849-9272

Chemical Family: Petroleum Hydrocarbon Oil
Synonyms: Liquid Paraffin; White Mineral Oil; Liquid Petrolatum
Molecular Weight: Variable.
Molecular Formula: $CH_3[CH_2]_nCH_3$

2. COMPOSITION / INFORMATION ON INGREDIENTS:

Component	CAS #	Range by Wt.
Severely Hydrotreated Heavy Paraffinic Petroleum Oil	64742-54-7	0.00 - 100.0
Severely Hydrotreated Light Paraffinic Petroleum Oil	64742-55-8	0.00 - 100.0

(See Section 8, "Exposure Controls/Personal Protection", for exposure guidelines.)

3. HAZARDS IDENTIFICATION:

NFPA Code: Health-1, Flammability-1, Reactivity-0

Emergency Overview: This product has been evaluated and does not require any hazard warning on the label under OSHA criteria.

Potential Health Effects:

EYE CONTACT: Mild eye irritation (stinging, redness and watering) may be caused with contact.

SKIN CONTACT: Mild skin irritation (redness, and a burning sensation) may be caused with contact.

INGESTION: Negligible effect; may act as a laxative.

INHALATION: No significant health hazards identified.

4. FIRST AID MEASURES:

EYE: Flush immediately with large amounts of clean water. If irritation occurs, call a physician.

SKIN: Wash exposed area of skin with soap and water. Remove contaminated clothing if necessary. If skin irritation or an allergic reaction occurs, get medical attention.

INGESTION: If symptomatic, call a physician or poison control center promptly.

INHALATION: If adverse effects occur, remove to uncontaminated area. Get

medical attention if symptoms persist.

5. FIRE FIGHTING MEASURES:

FLASH POINT: 350℉ (176.7℃) minimum
METHOD USED: Cleveland Open Cup (ASTM D92)
FLAMMABLE LIMITS:
LEL (% vol. in air): No Data
UEL (% vol. in air): No Data
AUTOIGNITION TEMPERATURE: Not determined.
FLAMMABILITY CLASSIFICATION: Slight hazard. Material must be preheated before ignition will occur (OSHA Class IIIB).
EXTINGUISHING MEDIA: Agents approved for Class B hazards (e.g., dry chemical, carbon dioxide, foam, steam) or water fog. Do not use streams of water as this will scatter the liquid and spread the fire. A water spray may be used to keep fire-exposed containers and surroundings cool.
UNUSUAL FIRE AND EXPLOSION HAZARDS: May create dense smoke during combustion. Mild fire hazard when heated above its flash point.
FIREFIGHTING EQUIPMENT: Firefighters should wear full bunker gear, including a positive pressure self-contained breathing apparatus.
HAZARDOUS COMBUSTION PRODUCTS: Incomplete burning can produce carbon monoxide and/or carbon dioxide and other toxic gases.

6. ACCIDENTAL RELEASE MEASURES:

Remove mechanically or contain on an absorbent material such as dry sand or earth. Remove all sources of ignition. Dike around spilled material. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Notify fire authorities and appropriate federal, state, and local agencies. Immediate cleanup of any spill is recommended. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, notify the National Response Center (1-800-424-8802).

7. HANDLING AND STORAGE:

HANDLING: No special requirements.
STORAGE: Store in a cool, well-ventilated area in sealed containers. Do not store in open or unlabelled containers. Store away from strong oxidizing agents or combustible material. "Empty" containers retain residue and may be dangerous. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION:

EYE: None required; however, use of eye protection is good industrial practice.
SKIN: None required; however, use of protective gloves/clothing is good industrial practice.
INHALATION: Avoid breathing mist. If ventilation is inadequate, use a NIOSH/MSHA certified respirator that will protect against dust/mist.
ENGINEERING CONTROLS: Control airborne concentrations below the exposure guidelines.
EXPOSURE GUIDELINES:

Limits:

OSHA PEL: 5 mg/m^3 (oil mist) (1989) (1971)
ACGIH TLV-TWA: 5 mg/m^3 (oil mist)
ACGIH TLV-STEL: 10 mg/m^3 (oil mist)

9. CHEMICAL AND PHYSICAL PROPERTIES:

APPEARANCE AND ODOR: Colorless, oily liquid. Odorless to mild petrolatum.
pH: Not determined.
VAPOR PRESSURE: < 1.0 mmHg @ 20℃ (68℉)
VAPOR DENSITY (Air=1): >1
BOILING POINT: Not determined.
MELTING POINT: Not determined.
SOLUBILITY: Negligible in water (below 0.1%); soluble in hydrocarbons.
SPECIFIC GRAVITY: 0.818 - 0.880 @ 25℃/25℃ (77℉)

10. STABILITY AND REACTIVITY:

STABILITY: Stable.
CONDITIONS TO AVOID: Avoid excessive heat and open flames.
MATERIALS TO AVOID: Avoid chlorine, fluorine, and other strong oxidizers.
HAZARDOUS DECOMPOSITION: Combustion can yield carbon, nitrogen, sulfur, phosphorus, and zinc oxides.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION:

Acute Toxicity Data:

EYE IRRITATION: Testing not conducted. See Other Toxicity Data.
SKIN IRRITATION: Testing not conducted. See Other Toxicity Data.
DERMAL LD_{50}: Testing not conducted. See Other Toxicity Data.
ORAL LD_{50}: Testing not conducted. See Other Toxicity Data.
INHALATION LC_{50}: Testing not conducted. See Other Toxicity Data.

Other Toxicity Data:

Specific toxicity tests have not been conducted on this product. Our hazard evaluation is based on information from similar products, the ingredients, technical literature, and/or professional experience.
A similar product produced a primary eye irritation score (PEIS) of less than 10/110.0 (rabbits), a primary skin irritation score (PDIS) of less than 4.0/8.0 (rabbits), a dermal LD_{50} greater than 2000 mg/kg (rabbits), and an oral LD_{50} score greater than 5000 mg/kg (rats). Also, a similar product was not a skin sensitizer when tested.
Oil mist: Repeated exposure to levels of oil mists in excess of the exposure limits may result in accumulation of oil droplets in pulmonary tissue and may lead to irritation of the nose and throat. No adverse health effect is expected to occur at or below the exposure limits. No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program, the U.S. Occupational Safety and Health Act, or the International Agency on Research on Cancer (IARC).

12. ECOLOGICAL INFORMATION:

Large volumes spills of lubricant base oils into water will produce a layer of undissolved oil on the water surface that will cause direct physical fouling of organisms and may interfere with surface air exchange resulting in lower levels of dissolved oxygen. Petroleum products have also been associated with causing taint in fish even when the latter are caught in lightly contaminated environments. Highly refined base oils sprayed onto the surface of eggs will result in a failure to hatch.

Extensive experience from laboratory and field trials in a wide range of crops has confirmed that little or no damage is produced as a result of either aerosol exposure or direct application of oil emulsion to the leaves of crop plants. Base oils incorporated into soil have resulted in little or no adverse effects on seed germination and plant growth at contamination rates up to 4%.

13. DISPOSAL INFORMATION:

Disposal must be in accordance with applicable federal, state, or local regulations.

14. TRANSPORTATION INFORMATION:

U.S. Department of Transportation: Not regulated.

International Information:

Canadian Transportation of Dangerous Goods: Not regulated.

15. REGULATORY INFORMATION:

CERCLA Sections 102A/103 Hazardous Substances (40 CFR Part 302.4): Not reportable.

SARA Title III Section 302 Extremely Hazardous Substances (40 CFR Part 355): Not regulated.

SARA Title III Sections 311/312 Hazardous Categorization (40 CFR Part 370): This product is defined as hazardous by OSHA under 29 CFR Part 1910.1200(d).

SARA Title III Section 313 (40 CFR Part 372): Not regulated.

U.S. Inventory (TSCA): Listed on inventory. All components comply with TSCA.

OSHA Hazard Communication Standard: Listed by ACGIH. Listed by OSHA.

16. OTHER INFORMATION:

This material safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in this data sheet which we received from sources outside our company. We believe that information to be correct but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.