MATERIAL SAFETY DATA SHEET

May be used to comply with OSHA's

Hazard Communication Standard, 29 CFP 1910.1200.

IDENTITY (As used on LABELS and LIST)

GLASS CLEANER CONCENTRATED

STN 593

NPCA Hazardous Materials Identification System

SPECIFIC HAZARD

PERSONAL PROTECTION

4-Severe

X - Ask Supervisor

3 - Serlous

A - Safety Glasses B - Goggles, Gloves

2 - Moderate

1 - Slight

C - Goggles, Gloves, Apron

0 - Minimal

D - Goggles, Gloves, Apron, Faceshield

Health (3)

Reactivity (1)

Flammability (03)

Personal Protection (C)

Section I

MFGR'S NAME AND ADDRESS:

HUNTER CHEMICAL & FORMULATING, CO., INC.

1300 ALDEN ROAD - ORLANDO, FL 32803 -1895

EMERGENCY TELEPHONE NUMBER:

(407)

898-4341

Date Prepared:

Telephone Number for Information: (407)

898-4341

06/18/95

Section II - Hazardous Ingredients/Identity Information

Hazardous Components

OSHA PEL

ACGIH TLU Other % Optional

Specific Chemical Identity

Common Names(s)

LIMITS

Recommended

*Isopropanol

CAS# 111-76-2

400PPM

400PPM *

6.7

CAS# 67-63-0 *2-Butoxyethanol

50PPM

75PPM

19.0

SECTION III - PHYSICAL/ CHEMICAL CHARACTERISTICS

BOILING POINT (F) Over 205°F

SPECIFIC GRAVITY (H20=1)

0.8381

VAPOR PRESSURE (mm Hg.) N/A

MELTING POINT

N/A

UEL

DAPOR DENSITY (air=1)

N/A

EUAPORATION RATE

Greater than 1

SOLUBILITY IN WATER

Complete

(Butyl Acetate=1)

APPEARANCE AND ODOR: Clear blue, thin liquid with a solvent odor.

SECTION IU- FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED)

FLAMMABLE LIMITS

LEL

Closed Cup - 65°F

N/A N/A

EXTINGUISHING MEDIA: Alcohol Foam or Carbon Dioxide or Dry Chemical

SPECIAL FIRE FIGHTING PROCEDURES: Use self-contained breathing apparatus with a full facepiece operated in a pressure-demand or other positive pressure mode.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite. Vapors are heavier than air and may may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static charges, or other ignition sources at locations distant from handling point.

^{*} ACGIH - Short term exposure limit for Isopropyl Alcohol is 500PPM. NIOSH - Recommends a limit of 400PPM, 8-hour TWA 800PPM-Ceiling

^{**} Skin absorption may potentially contribute to the overall exposure to this material. Appropriate measures should be taken to prevent absorption so that the TLV is not invalidated.

^{***}This mixture contains 19.0% of 2-Butoxyethanol which is subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR. Part 372.

SECTION U - REACTIVITY DATA Glass Cleaner Concentrated (STN 593)

STABILITY: UNSTABLE []

CONDITIONS TO AVOID:

STABLE [X]

Heat, Sparks, Flame

INCOMPATIBILITY (MATERIALS TO AUDID)

Avoid contact with strong oxidizing agents..

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

Burning can produce carbon monoxide and/or carbon dioxide.

HAZARDOUS

May Occur

Conditions to Avoid:

Polymerization -

May Not Occur [X]

SECTION UI - HEALTH HAZARD DATA

ROUTES(S) OF ENTRY:

INHALATION:

SKIN:

Yes

INGESTION:

No

Health Hazards (Acute and Chronic)

Pre-existing blood, liver and/or kidney disorders may be aggravated by overexposure to this product.

CARCINOGENICITY:

NTP?

IARC Monographs?

OSHA Regulated?

No

No

SIGNS AND SYMPTOMS OF EXPOSURE:

EYES: Can cause severe irritation, redness; tearing, blurred vision SKIN: Prolonged or repeated contact can cause moderate irritation; defatting dermatitis

SKIN: Prolonged of repeated contact can cause moderate inflation, defaults by the processive inhelation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness, and even asphyxiation.

SWALLOWING: Can cause gastrointestinal irritation, nausea, vomiting and diarrhea

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Pre-existing blood, liver and/or kidney disorders may be aggravated

by overexposure to this product.

EMERGENCY AND FIRST AID PROCEDURES:

SKIN: Thoroughly wash exposed area with soap and water. Remove contaminated clothing before re-use.

EYES: Flush with large amounts of water lifting upper and lower lids occasionally. Get medical attention.

SWALLOWED: Immediately drink two glasses of water and induce vomiting by either giving ipecac syrup or by placing finger at back of throat. Never give anything by mouth to an unconscious person.

INHALED: If affected, remove individual to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep

person quiet and get medical attention. Promptly call a physician.

SECTION UII- PRECAUTIONS FOR SAFE HANDLING AND USE

<u>STEPS TO BE TAKEN IN CASE MATERIAL I</u>S RELEASED OR SPILLED:

Take up with absorbent material and remove mechanically.

WASTE DISPOSAL METHOD:

Dispose of waste in accordance with Federal, State and Local ordinances.

Containers of this material may be hazardous when emptied since emptied containers retain product residues(vapors, liquid, and/or solid)

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

Keep containers tightly closed. Keep containers cool, dry, and away from sources of ignition. Use and store with adequate

OTHER PRECAUTIONS: All precautions in this MSDS must be observed.

Overexposure to material has apparently been found to cause the following effects in laboratory animals; liver abnormalities, kidney damage, brain damage. Overexposure to material has been suggested as a cause of the the following effects in humans: Kidney Damage.

SECTION UIII - CONTROL MERSURES

RESPIRATORY PROTECTION:

(SPECIFY TYPE): If TLV of product or any component is exceeded, a NIOSH/MSHA jointly approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators under specified conditions (See Safety Equipment Supplier). Engineering or Administrative controls should be implemented to reduce exposure. VENTILATION:

LOCAL EXHAUST:

Adequate

OTHER:

NONE

MECHANICAL (GENERAL): Adequate

OTHER: NONE

PROTECTIVEGLOVES: Impervious rubber gloves

EYE PROTECTION: Chemical splash goggles

OTHER PROTECTIVE EQUIPMENT: Wear impervious clothing and boots and any protective equipment to prevent repeated or

prolonged skin contact.

WORK/HYGIENIC PRACTICES: Wash thoroughly after handling.

We believe all information given is accurate. It is offered in good faith, but without guarantee. Since conditions are beyond our control, user assumes all responsibility and risk.