[][][][] - MATERIAL SAFETY DATA SHEET - [][][][][]

COMPLIES WITH OSHA HCS 29, CFR 1910,1200 - ND OSHA 174

PRODUCT NAME (AS USED ON LABEL)

AMMONIA

HOUSEHOLD 3.5%- AS LABELED

EMERGENCY TELEPHONE NUMBERS: 1-313-782-2234 1-313-283=1192

SECTION #1

MANUFACTURER

Rooto Corporation 3505 West Grand River Howell, MI 48843

TELEPHONE NUMBER FOR GENERAL INFORMATION: 1-313-843-4500

SECTION #2 HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components OSHA (PEL) ACGIH (TEL) (Specific Chemical Name)

AMMONIA (AS NH3) 50ppm 25ppm NIOSH *(AMMONIA GAS) mqq05

HOUSEHOLD AMMONIA-FINISHED PRODUCT CAS # 1336-21-6 N/A N/A

SECTION #3-PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: 191 to 212 degrees F.

VAPOR PRESSURE: N/A

SPECIFIC GRAVITY: 0.9890

EVAPORATION RATE: 1

WAPOR DENSITY: N/A

SOLUBILITY IN WATER: Complete

APPEARANCE/ODOR: Clear, cloudy white or colored liquid with a distinct pungent ammonia odor.

SECTION #4-FIRE & EXPLOSIVE HAZARD DATA:

FLASH POINT (Method Used) Non-Flammable FLAMMABLE LIMITS (LEL)-16% (UEL)-27% EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, water

spray or foam. SPECIAL FIRE FIGHTING PROCEDURES: If possible, move product from fire area. Cool fire-exposed containers with water. UNUSUAL FIRE & EXPLOSIVE HAZARDS: Negligible fire &

explosive hazard. If ammonia is involved, it is flammable.

AMMONIA - HOUSEHOLD ...continued

BECTION #5-REACTIVITY DATA:

STABILITY: Stable CONDITIONS TO AVOID: Heat INCOMPATIBILITY: Chlorine, iodine, hypochlorite, mineral acids. Violent reactions may occur with incompatible materials, releasing irritating or toxic gases.

HAZARDOUS DECOMPOSITION PRODUCTS: Toxic oxides of nitrogen and ammonia gas.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION \$6-HEALTH HAZARD DATA:

ROUTE OF ENTRY: Inhalation-likely Skin-likely Ingestion-unlikely.

HEALTH HAZARDS: (ACUTE) - Based on the testing of this product, it is both an eye and skin irritant, and toxic by ingestion. CHRONIC) - noT DETERMINED ON THIS PRODUCT>

CARCINOGENICITY: NTP IARC MONOGRAPHS OSHA REGULATED? N/A N/A N/A N/A N/A N/A N/A N/A hazardous component in the product.

SIGNS AND SYMPTOMS OF EXPOSURE:

INHALATION: Mild exposure to ammonia vapors may cause irritation of the nose, throat, coughing and sneezing. A more severe exposure may cause respiratory irritation, dyspnea, pulmonary edema.

INGESTION: May cause excessive salvation, nausea, vomiting, gastric irritation, with chances of perforation. Ingestion of large quantities may produce CNS depression, shock and convulsions.

SKIN: Powerful irritant, may cause severe burning pain and corrosive damage. Repeated or prolonged exposure may cause dermatitis.

EYES: Powerful irritant, may cause conjunctivitis, swelling of eyelids, chemical burns, transient corneal damage, while repeated or prolonged exposure may cause cataracts and retinal atrophy.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None EMERGENCY AND FIRST AID PROCEDURES; EYES-Immediately flush with running water for at least 15 minutes. Get prompt medical attention. SKIN-Rinse well with running water. If irritation persists, contact physician or local poison control center. INHALATION-Remove victim to fresh air. Provide symptomatic and supportive care. Contact physician or poison control center. INGESTION-Immediately give large quantities of water or milk to dilute. Do not induce vomiting. Get prompt medical attention.

AMMONIA - HOUSEHOLD .. continued

BECTION #7-PRECAUTIONS FOR SAFE HANDLING AND USE

EYE PROTECTION: Avoid eye contact. Wear protective safety goggles or face shield.

SKIN PROTECTION: Avoid prolonged skin contact. Wear

protective gloves.

RESPIRATORY PROTECTION: Keep up wind of spill. Avoid breathing vapors. Use NIOSH approved respirator that will provide protection from ammonia gas. If ammonia vapors are 300 PPM, use self-contained breathing apparatus with full face shield.

WASTE DISPOSAL METHOD: Dilute with water and flush to sewer in accordance with federal, state and local environmental regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING & STORING: Do not mix with other household chemicals like bleach, toilet bowl cleaners, wall and tile cleaners.

Store in cool vented area. Keep out of direct sun-light. Avoid over heating, plastic bottle will bulge from ammonia vapor pressure.

OTHER PRECAUTIONS: None

SECTION #8-CONTROL MEASURES

RESPIRATORY PROTECTION: NIOSH approved respirator or breathing apparatus with face shield. VENTILATION - LOCAL EXHAUST: Yes SPECIAL: N/A MECHANICAL: N/A N/A OTHER: PROTECTIVE GLOVES: Wear protective gloves. EYE PROTECTION: Wear safety goggles with face shield. OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Uniforms, coveralls, labcoats. WORK/HYGIENIC/MAINTENANCE PRACTICES: Provide eye bath and emergency shower. Launder work clothing when soiled.

The information container herein is provided in good faith, and is believed to be correct as of the date hereof, however, we make no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining the appropriateness for a particular purpose. Accordingly, we will not be responsible for damages of any kind resulting from the use of, or reliance upon such information. No representations, or warranties, either express or implied of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information set forth herein or to the product to which the information refers.