MATERIAL SAFETY DATA SHEET MSDS K-103 REVISION 8

THE DIAL CORPORATION
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SUBSTANCE IDENTIFICATION

SUBSTANCE: GLYCERIN

TRADE NAMES/SYNONYMS: GLYCERIN - USP GRADE: 96.00%, 99.00%, 99.50%

CHEMICAL FAMILY: GLYCEROL

I.D. NUMBER: 900401, 900402, 900403

NFPA RATINGS (Scale 0-4, where 4=high degree of hazard): HEALTH=1 FLAMMABILITY=1 REACTIVITY=0 HMIS RATINGS (Scale 0-4, where 4=severe hazard): HEALTH=1 FLAMMABILITY=1 REACTIVITY=0

HAZARDOUS INGREDIENT INFORMATION

COMPONENT: GLYCERIN CAS# 56-81-5

5 mg/m³ OSHA TWA (respirable fraction) 15 mg/m³ OSHA TWA (total dust) 10 mg/ m³ ACGIH TWA (mist)

Carcinogen status of component: Not listed as a carcinogenic by NTP, IARC, or OSHA.

PHYSICAL AND CHEMICAL DATA

DESCRIPTION: Clear, colorless, syrupy liquid.

SPECIFIC GRAVITY: 1.25 – 1.26 @ 25 °C BOILING POINT: 182 °C @ 20MM

VAPOR PRESSURE: 0.0025 mm Hg @ 50 °C SOLUBILITY IN WATER: Miscible.

FIRE AND EXPLOSION DATA

FLASHPOINT: 351 °F, Cleveland Open Cup. OSHA FLAMMABILITY CLASSIFICATION: Class IIIB

FIRE AND EXPLOSION HAZARD - Negligible fire hazard when exposed to heat or flame.

FIRE FIGHTING MEDIA - Use agents suitable for type of surrounding fire.

FIRE FIGHTING - Move container from fire area if you can do it without risk. Do not scatter spilled material with high-pressure water streams. Dike fire-control water for later disposal. Avoid breathing vapors, keep upwind.

HEALTH HAZARD DATA

NOTE: The acute health effects described below are those which could potentially occur for the material. They are based on the toxicology information available for the material, and are consistent with the likelihood of a specific route of exposure. Known chronic health effects related to exposure to the material are indicated.

ACUTE HEALTH EFFECTS:

INHALATION: Due to its low vapor pressure glycerin is not considered likely to be an inhalation hazard at

normal room temperatures. Vapor or mist in sufficient concentrations may interfere with respiratory function. At elevated temperatures the fume may cause irritation and dehydration of

the mucous membranes.

SKIN CONTACT: Repeated or prolonged exposure to concentrated solutions may result in iritation or dermatitis.

EYE CONTACT: May cause irritation.

INGESTION: May cause digestive tract irritation with nausea and vomiting.

CHRONIC HEALTH EFFECTS: None known.

MEDICAL CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE: None known.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Immediately remove from exposure area to fresh air. Keep affected person warm and at rest. Treat symptomatically and supportively. Contact physician or local poison control center. If breathing has stopped, give artificial respiration, and get medical attention immediately.

SKIN CONTACT: Remove contaminated clothing and shoes. Rinse affected area with mild soap and large amounts of water until no evidence of material remains. Get medical attention if irritation persists.

EYE CONTACT: Immediately rinse eyes with large amounts of water, occasionally lifting upper and lower lids, until no evidence of material remains. Get medical attention if pain or irritation persist.

INGESTION: Treat symptomatically and supportively. Maintain airway and respiration. If vomiting occurs, keep head below hips to prevent aspiration. Dilution by rinsing the mouth and giving water or milk to drink is generally recommended. If unconscious, the victim should not be given anything to drink. Contact physican or poison control center.

REACTIVITY

REACTIVITY - Stable under normal temperatures and pressures.

INCOMPATIBILITIES: Strong acids, strong oxidizers, peroxides, acetic anhydride, calcium hypochlorite, liquid chlorine, chromium trioxide, silver perchlorate, potassium chlorate, potassium permaganate, sodium hydride.

DECOMPOSITION - Thermal decomposition may release toxic and/or hazardous gases, including acrolein.

POLYMERIZATION - Hazardous polymerization has not been reported to occur under normal temperatures and pressures.

STORAGE AND DISPOSAL

Store away from incompatible substances. Observe all federal, state and local regulations when storing or disposing of this substance.

CONDITIONS TO AVOID

Avoid contact with incompatible substances and excessive heat.

SPILL AND LEAK PROCEDURES

OCCUPATIONAL SPILL - Stop leak if you can do it without risk. For small spills, take up with sand or other absorbent material and place into clean, dry containers for later disposal. For larger spills, dike far ahead of spill for later disposal. Keep unnecessary people away and isolate hazard area.

OCCUPATIONAL PROTECTIVE EQUIPMENT

VENTILATION - Provide local exhaust ventilation system to meet published exposure limits, where mists are likely to be generated.

RESPIRATOR - Air contamination monitoring should be carried out, where mists are likely to be generated, to assure that the employees are not exposed to harmful concentrations abovethe published exposure limits. If respiratory protection is required, it must be based on the contamination levels found in the workplace, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA).

FOR FIRE FIGHTING AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONDITIONS -

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode. Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

CLOTHING - Protective clothing should be worn during occupational use conditions where prolonged skin contact may occur.

GLOVES - Protective gloves should be worn during occupational use conditions where prolonged skin contact may occur.

EYE PROTECTION - Splash-proof safety glasses should be worn to prevent eye contact during occupational use conditions.

REGULATORY INFORMATION

DOT FLAMMABILITY CLASSIFICATION: Not applicable.

EPA - SARA TITLE III SECTION 313: Toxic chemical: None.

TSCA:

All components of this product are listed or are exempted or excluded from listing on the U.S. Toxic

Substances Control Act (TSCA) chemical substance

inventory.

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MSDS CREATION DATE: 03/29/89 SUPERSEDES: Rev. 7; 04/14/03 REVISION DATE: 10/22/04

REVISION: Trade Name, Hazardous Ingredients, and Physical & Chemical Data sections.