MATERIAL SAFETY DATA SHEET 29 CFR 1910.1200 OSHA Hazard Communication Rule Format Chem-Tel 24 Hour Emergency # 1-800-255-3924

MINE SAFETY APPLIANCES COMPANY P.O. Box 426 Pittsburgh, PA 15230 PHONE (412) 967-3000

This product contains Ammonium Chloride, a substance subject to the Pennsylvania Worker and Community Right-To-Know Act.

CHEMICAL IDENTITY

LABEL IDENTITY - MSA P/N 049207 Oxylite refill for MSA Oxygen Indicator

CHEMICAL NAME - Ammonium Chloride Solution

ADDITIONAL IDENTITIES - Oxylite Electrolyte

FORMULA - NH₄Cl in H₂O

CAS REGISTRY NUMBERS - 12125-02-9

APPLICABLE CHEMICAL CONTENTS

Ammonium Chloride (CAS 12125-02-9) $\frac{\%}{2}$ $\frac{\text{TWA}}{10 \text{ mg/M}^3}$ Water Balance None

1999 ACGIH NH₄ Cl TWA 10 mg/M³, STEL 20 Mg/M³ are for NH₄Cl Fume. Airborne fumes not produced by intended application of this product.

NOTE: pH of this product is adjusted 3.0.

NOTE: A refill bottle contains 75 milliliters of Oxylite.

PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR - Clear, Odorless liquid

BOILING POINT - 212 0 F SPECIFIC GRAVITY $(H_2O = 1)$ - >1 VAPOR PRESSURE - N/A SOLUBILITY IN WATER - Complete

PERCENT VOLATILE BY VOLUME - Approx. 98 pH - 3.0
VAPOR DENSITY (AIR = 1) - N/A FREEZING POINT- 260F

N/A - Not Applicable

PHYSICAL HAZARD INFORMATION

PHYSICAL HAZARD - None

CONDITIONS OR MATERIALS TO AVOID - Avoid contact with Chlorates and Other strong Oxidizers, Silver Salts, Ammonium

Nitrate, Strong Acids, or Alkalies.

FLASH POINT - N/A LEL - N/A UEL - N/A

EXTINGUISHING MEDIA - As Appropriate for Surrounding Fire.

SPECIAL FIRE FIGHTING PROCEDURES - Wear customary fire fighting equipment including Self-Contained Breathing

Apparatus with Full Facepiece.

UNUSUAL FIRE & EXPLOSION HAZARDS - Ammonium Chloride can decompose yielding Hydrogen Chloride or Ammonia

Gases, depending on conditions.

HEALTH HAZARDS

HEALTH HAZARDS - Irritant. LD50 rat oral 1650 mg/kg.

SIGNS AND SYMPTOMS OF EXPOSURE - Skin- Irritation

Eye - Irritation and Redness

Ingestion - May cause Headache, nausea, Vomiting, Gastric Irritation, Heavy

Breathing, Drowsiness, Confusion, Restlessness

PRIMARY ROUTES OF ENTRY - Skin Contact, Eye Contact, Ingestion

TARGET ORGANS - Eye, Skin, Respiratory system

MEDICAL CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED

BY EXPOSURE - No Information

EXPOSURE LIMITS (OSHA PER, ACGIH TLV,

OTHERS USED OR RECOMMENDED)- 1999 ACGIH (NH₄Cl) 10 mg/M³ (Fume), STEL 20 MgM³ (Fume)

CARCINOGENICITY DATA - Not listed in RTECS.

EMERGENCY & FIRST AID PROCEDURES - Eye Contact - Rinse with running water for 15 minutes lifting eyelids frequently

to rinse underlid areas. See a physician immediately.

Skin Contact- Remove wetted clothing and wash affected body area with soap

and Water. Launder clothing before reuse. While irritation from promptly removed 2% Ammonium Chloride solution is unlikely,

consult a Physician if irritation occurs.

Ingestion- Drink 2-4 glasses of water and encourage vomiting. SEE A

PHYSICIAN IMMEDIATELY.

SAFE HANDLING AND USE

HYGIENIC PRACTICES - Avoid contact with electrolyte. Wash hands with soap and water after replacing

electrolyte in cell.

PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE OF

CONTAMINATED EQUIPMENT - See preceding item.

STORAGE - Protect from freezing (260F). Protect glass containers from breakage. Keep bottles

closed until ready for use.

WASTE DISPOSAL - Consult facility environmental personnel for proper disposal in accordance with

local, state, and federal regulations.

CONTROL MEASURES

PERSONAL PROTECTIVE EQUIPMENT - Use of splash-proof eyewear is recommended.

ENGINEERING CONTROLS - Not applicable

WORK PRACTICES - Wash hands with soap and water after filling or emptying cell.

DATE OF PREPARATION - Rev. 5, June 1999

WARNING: This is a hazardous chemical product. By following the directions and warnings provided with this product, the hazards associated with the use of this product can be greatly reduced but never entirely eliminated. Mine Safety Appliances Company makes no warranties, expressed or implied, with respect to this product and EXPRESSLY DISCLAIMS THE WARRANTY OF MERCHANTABILITY AND ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. Users assume all risks in handling, using or storing this product.