

HMIS RATING	
Health	2
Flammability	2
Reactivity	0

**MATERIAL  
SAFETY DATA  
SHEET**

NFPA 704 RATING	
Health	2
Flammability	2
Reactivity	0
NFPA 30B LEVEL	
1	

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### 1. PRODUCT IDENTIFICATION

PART NUMBER.....80-473  
PRODUCT NAME.....Battery Cleaner with Acid Detector  
CHEMICAL FAMILY.....N/A  
DOT SHIPPING.....Limited Quantity (LQ)

### 2. HAZARDOUS INGREDIENTS

SPECIFIC CHEMICAL IDENTITY, COMMON NAMES	OSHA PEL	ACGIH TLV	STEL	%
Propane/Isobutane/N-butane (68476-86-8)	800ppm	800ppm		20
Triethanolamine (102-71-6)	NE	5mg/m <sup>3</sup>		

All chemical compounds marked with an asterisk (\*) are toxic chemicals subject to the reporting of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372. You must notify each person to whom this mixture of trade name product is sold. This statement must not be detached. Any copy or redistribution of this Material Safety Data Sheet shall include this statement.

### 3. PHYSICAL DATA

BOILING POINT (RANGE).....-43-651°F  
VAPOR PRESSURE PSIG @ 70°F.....25-35  
VAPOR DENSITY (AIR = 1).....>1  
SOLUBILITY IN WATER.....Complete  
SPECIFIC GRAVITY (H<sub>2</sub>O = 1).....0.9224  
MELTING/FREEZING POINT.....N/A  
EVAPORATION RATE (Ether=1).....>1  
VOC content (by weight).....16.9%  
APPEARANCE AND ODOR.....Transparent amber / amine odor

### 4. FIRE AND EXPLOSION DATA

FLASH POINT.....132°F  
UPPER EXPLOSIVE LIMIT (%).....10.0  
LOWER EXPLOSIVE LIMIT (%).....1.3  
EXTINGUISHING MEDIA.....Dry chemical, CO<sub>2</sub>, foam, water fog  
SPECIAL FIREFIGHTING PROCEDURES.....Container can build up pressure if exposed to heat (fire). As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear.

FIRE AND EXPLOSION HAZARDS.....Vapors can travel to a source of ignition and flash back. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity or other sources of ignition; they may explode and cause injury or death. Empty drums should be completely drained, properly banded and promptly returned to a drum reconditioner, or properly disposed of.

### 5. HEALTH EFFECTS DATA

#### SHORT TERM EFFECTS OF EXPOSURE

ROUTE OF ENTRY.....Eyes, Skin, Inhalation  
HEALTH HAZARDS (ACUTE AND CHRONIC).....Vapors irritating to eyes and respiratory tract. Vapors may cause flash fire or explosion. Overexposure may cause nervous system damage, lung damage, kidney damage.  
EYE CONTACT.....Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of a fine dust in the eyes.  
SKIN CONTACT.....Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis.  
INHALATION.....Headaches, dizziness, nausea, decreased blood pressure, changes in hear rate and cyanosis may result from overexposure to vapor or skin exposure. Prolonged inhalation may be harmful.  
INGESTION.....This material may be harmful or fatal if swallowed. If a corrosive product, may cause severe and permanent damage to the mouth throat and stomach.

### 5. HEALTH EFFECTS DATA CON'T.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE.....None known

#### FIRST AID PROCEDURES

EYES.....Flush with water for at least 15 minutes, obtain medical attention.  
SKIN CONTACT.....Wash with soap, large volumes of water. Obtain medical attention immediately.  
INGESTION.....Do not induce vomiting, obtain immediate medical attention.  
INHALATION.....Remove to fresh air. Restore breathing and keep calm and warm.

#### SPECIAL HEALTH EFFECTS

CARCINOGEN (OSHA Guidelines).....Presently not on any lists.

### 6. REACTIVITY

STABILITY.....Stable  
INCOMPATIBILITIES.....Strong acids, alkalis, oxidizers and amines. Avoid all sources of ignition, welding arcs, and open flames.

HAZARDOUS DECOMPOSITION PRODUCTS.....Oxides of carbon, nitrogen  
HAZARDOUS POLYMERIZATION.....Will not occur  
HAZARDOUS POLYMERIZATION CONDITIONS.....None known

### 7. PRECAUTIONS FOR SAFE HANDLING & USE

PROTECTIVE EQUIPMENT REQUIREMENTS.....Safety glasses; protective neoprene gloves; ventilation sufficient to maintain vapor concentrations below TLV; wear NIOSH approved respirator if TLV is exceeded  
WASH REQUIREMENTS.....Wash with soap and water.  
SPILL OR LEAK PROCEDURES.....Remove all sources of ignition; use absorbent sweeping compound to soak up material; wash area to prevent slipping  
WASTE DISPOSAL METHODS.....Dispose of in accordance with local, state, and federal hazardous waste regulations  
HANDLING & STORAGE.....Store below 120°F; keep away from heat, sparks, or open flame; do not incinerate aerosol cans  
OTHER PRECAUTIONS.....Intentional misuse by deliberately concentrating and inhaling contents can be harmful or fatal.

### 8. ADDITIONAL INFORMATION

Use self-contained breathing apparatus if TLV limits are exceeded. Do not eat or smoke while using. Wash hands after use. Use positive pressure air supplied respirator if there is potential for uncontrolled release, if exposure levels are unknown, or in any circumstance where air purifying respirators may not provide adequate protection.

THE INFORMATION GIVEN AND THE RECOMMENDATIONS MADE HEREIN APPLY TO OUR PRODUCT(S) ALONE AND ARE NOT COMBINED WITH OTHER PRODUCTS. SUCH INFORMATION IS BASED UPON OUR RESEARCH AND ON DATA FROM OTHER RELIABLE SOURCES AND IS BELIEVED TO BE ACCURATE. NO GUARANTEE OF ACCURACY IS MADE. IT IS THE PURCHASER'S RESPONSIBILITY BEFORE USING ANY PRODUCT TO VERIFY THIS DATA UNDER THEIR OWN OPERATING CONDITIONS AND TO DETERMINE WHETHER THE PRODUCT IS SUITABLE FOR THEIR PURPOSES.

**KIMBALL  
MIDWEST**  
*Specializing in Materials Management since 1923*