

MATERIAL SAFETY DATA SHEET**CHEMSPEC ® • 901 N. NEWKIRK STREET • BALTIMORE, MD 21205 • (410) 675-4800**

HEALTH = 1, FLAMMABILITY = 0, REACTIVITY = 0, SPECIAL = NONE, DEGREE OF HAZARD: 4 = EXTREME, 3 = HIGH, 2 = MODERATE, 1 = SLIGHT, 0 = INSIGNIFICANT

PRODUCT NAME: **FORMULA 161**

DOCUMENT CODE: Formula 161

CHEMICAL FAMILY: Mixture

DATE: 09/06/96

DATE REVIEWED: 08/18/99

EMERGENCY 24-HOUR TELEPHONE # 1-800-424-9300 (CHEMTREC)

N/A = Not applicable

N/D = Not determined

SECTION I: HAZARDOUS INGREDIENTS/HEALTH HAZARD DATA

This product has not been tested as a whole for health effects on animals or humans. According to the OSHA Hazardous Communications Standard (29 CFR 1910.1200) any hazardous ingredients that comprise >1.0% of the material and any carcinogenic ingredients that comprise >0.1% must be listed on the MSDS.

SECTION I (a): List of carcinogenic ingredients at >0.1%.

None.

SECTION I (b): List of hazardous ingredients at >1.0%.

NAME	CAS NO.
2-BUTOXYETHANOL	111-76-2

May cause eye irritation and corneal injury. May cause skin irritation. Prolonged or repeated dermal exposures may lead to hemolysis. Ingestion may lead to hemolysis and kidney effects. Inhalation may cause irritation of the upper respiratory tract, blood and kidney effects. Oral rat LD50 is 470 mg/kg; dermal rabbit LD50 is 220 mg/kg; rat LC50 is 700 ppm in 7 hrs. OSHA PEL and ACGIH TLV are 25 ppm, skin.

SECTION II: EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush with water for at least 15 minutes. Consult physician.
SKIN: Remove contaminated clothing. Thoroughly wash exposed skin with soap and water.
INHALED: Remove to fresh air. If symptoms persist consult physician.
INGESTION: Induce vomiting if large amounts are ingested. Seek medical attention.
PHYSICIAN: Treatment based on judgment of attending physician.

SECTION III: PHYSICAL / CHEMICAL DATA

APPEARANCE AND ODOR: Clear yellow liquid with mild ammonia odor.		
WATER SOLUBILITY, % BY WT: > 95	SPECIFIC GRAVITY: 1.04 - 1.05	pH: 9.0 - 10.0
%VOLATILE BY WT: 85 - 88	WT/GAL: 8.7 lbs.	pH @ use: 8.5 - 9.5
BOILING POINT: N/D	EVAPORATION RATE (BUTYL ACETATE = 1): 1.1	

SECTION IV: FIRE AND EXPLOSION DATA

FLASH POINT: > 200 degrees F (TCC) AUTO-IGNITION TEMPERATURE: N/D
EXPLOSIVE LIMITS - LEL: N/D UEL: N/D EXTINGUISHING MEDIA: Water, CO₂, foam or dry chemical.
SPECIAL FIRE FIGHTING PROCEDURES: Use NIOSH/MSHA approved self-contained positive-pressure breathing apparatus and protective clothing where this material is involved in a fire.
UNUSUAL FIRE AND EXPLOSION HAZARD: None known.

SECTION V: REACTIVITY DATA

STABILITY: Stable HAZARDOUS POLYMERIZATION: Will not occur.
INCOMPATIBILITY: Strong oxidizing agents.
HAZARDOUS DECOMPOSITION/COMBUSTION PRODUCTS: Possibly oxides of carbon and nitrogen, H₂O and unidentified organic compounds.

SECTION VI: SPILLS, LEAKS AND DISPOSAL PROCEDURES

WASTE DISPOSAL: In accordance with Federal, State and Local regulations. NEUTRALIZING CHEMICALS: Water

SECTION VII: PROTECTION MEASURES

VENTILATION: Local exhaust or dilution ventilation may be necessary in poorly ventilated areas.
EYE PROTECTION: Chemical resistant safety glasses.
RESPIRATORY PROTECTION: When adequate ventilation cannot be achieved, use NIOSH/MSHA approved respirator equipped with organic vapor cartridges.
GLOVES: Rubber gloves. OTHER PROTECTIVE EQUIPMENT: Body-covering clothing should be worn.

SECTION VIII: SPECIAL PRECAUTIONS

One should always use chemicals with awareness of potential hazards, known and unknown, and their effect on the human system. We urge users to minimize employee exposure to all chemicals, including this product and to keep the level of exposure commensurate with good industrial hygiene practices.

DISCLAIMER OF LIABILITY

The manufacturer and seller warrants that this product conforms to its standard specifications when used according to directions. As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions are made without any warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material and the results to be obtained from the use thereof.