



Chemical Specialties Manufacturing Corporation

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MATERIAL SAFETY DATA SHEET

(Prepared according to 29 CFR 1910.1200)

Degree of hazard: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Insignificant

Health 1
Flammability 0
Reactivity 0

SECTION I: PRODUCT IDENTIFICATION

PRODUCT NAME: Liquid Formula 77

DATE REVIEWED: May 6, 2002

DOC CODE: Liquid Formula 77

CHEMICAL FAMILY: Mixture.

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

N/A = Not applicable or Not available.

N/D = Not determined.

SECTION II: COMPOSITION/ INFORMATION ON INGREDIENTS

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. When individually tested at 100% ingredients in the make-up of this product posed the following health hazards. This product is further diluted 1 part with 320 parts of water when used.

SECTION II a: HAZARDOUS INGREDIENTS >1.0%

Chemical Name	CAS #	PEL	TLV
Sodium Metasilicate	6834-92-0	NA	NA
Alcohol Ethoxylates	68439-50-9	NA	NA

SECTION II b: CARCINOGENIC INGREDIENTS AT >0.1%

Chemical Name	CAS #	PEL	TLV
Trisodium Nitritotriacetate	18662-53-8	NA	NA

* = Listed as a possible carcinogen by IARC and NTP. Detergents containing Sodium Nitritotriacetate are exempt from labeling under California Proposition 65 because exposure in detergent applications are significantly less than the "**NO SIGNIFICANT RISK LEVEL**" established by Cal-EPA for this compound. The Universities Associated for Research and Education in Pathology, Inc. determined that the cancer risk to man was so low 'one in ten million or less' as to be of no practical significance. Thus UAREP concluded that '**use of NTA in detergent products does not pose a practical risk to human health.**'

SECTION III: HAZARDS IDENTIFICATION

EYES: May cause severe eye irritation and possible burns.
SKIN: May cause severe skin irritation and possible burns.
INHALATION: Breathing dust may cause irritation of the upper respiratory tract.
INGESTION: May cause abdominal discomfort, nausea and diarrhea.

SECTION IV: FIRST AID PROCEDURES

EYES: Flush with water for at least 15 minutes. If irritation persists consult physician.
INGESTION: Drink 1 to 2 glasses of water. Consult physician.
INHALED: Remove to fresh air. If symptoms persist or are severe seek prompt medical assistance.
SKIN: Remove contaminated clothing. Thoroughly wash exposed area with soap and water.
PHYSICIAN: Treatment based on judgment of attending physician.

SECTION V: FIRE AND EXPLOSION DATA

FLASH POINT: N/A
AUTO-IGNITION TEMPERATURE: N/D
EXPLOSIVE LIMITS - UEL: N/D LEL: N/D
EXTINGUISHING MEDIA: Alcohol foam, water fog, CO₂ 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 VI: ACCIDENTAL RELEASE MEASURES

Scoop up spilled material and re-use if possible. If material cannot be used dispose in landfill.

SECTION VII: HANDLING AND STORAGE

No special precautions required.

SECTION VIII: PROTECTION MEASURES

VENTILATION: Local exhaust or dilution ventilation is necessary in poorly ventilated areas.
GLOVES: Rubber gloves.
RESPIRATORY: When mists or aerosols are anticipated, wear NIOSH/MSHA approved respirator equipped with organic vapor cartridges with high-efficiency particulate filters.
EYE: Safety glasses. Wear splash goggles when mists or aerosols are anticipated.
OTHER PROTECTIVE EQUIPMENT: Body-covering clothing should be worn.

SECTION IX: PHYSICAL/CHEMICAL DATA

APPEARANCE AND ODOR: Clear yellow liquid with citrus odor.
WATER SOLUBILITY, % BY WT: All proportions
SPECIFIC GRAVITY: 1.09 % VOLATILE BY WT.: 68 - 72 pH @ USE: 9.5 - 10.5
pH: 12.0 - 13.0 WT/GAL: 9.0 lbs.
BOILING POINT: Approx. 212 degree F

SECTION X: REACTIVITY DATA

STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur.
INCOMPATIBILITY: Strong Acids
HAZARDOUS DECOMPOSITION/COMBUSTION PRODUCTS: Possibly oxides of carbon or nitrogen, ammonia, halide compound and other unidentified organic compounds.

SECTION XI: TOXICOLOGICAL INFORMATION OF INGREDIENTS

Trisodium Nitrotriacetate: Oral rat LD50 is 1450 mg/kg, dermal rabbit LD50 is > 10,000 mg/kg.
Sodium Metasilicate: Oral mouse LD50 is 770 mg/kg.

SECTION XII: ECOLOGICAL INFORMATION

Ready to use solution is biodegradable. No other information is available.
Liquid Formula 77

SECTION XIII: SPILL, LEAK AND DISPOSAL PROCEDURES

WASTE DISPOSAL: In accordance with Federal, state and local regulations.

NEUTRALIZING CHEMICALS: Water.

SECTION XIV: TRANSPORT INFORMATION PER 49 CFR 172.101

GROUND TRANSPORTATION:

4-1 GALLON CASE, 5-GALLON PAIL – ORM-D.

55-GALLON DRUM-

Corrosive liquids (Contains Disodium Trioxosilicate), n.o.s., Class 8, UN 1760, PG III.

AIR TRANSPORTATION:

Corrosive liquids (Contains Disodium Trioxosilicate), n.o.s., Class 8, UN 1760, PG III.

Quantity Limitations: 5L. Aircraft: Passenger.

Quantity Limitations: 60 L. Aircraft: Cargo.

MARITIME TRANSPORTATION:

Corrosive liquids (Contains Disodium Trioxosilicate), n.o.s., Class 8, UN 1760, PG III.

IMDG PAGE #: 8147.

SECTION XV: REGULATORY INFORMATION

Domestic:

TSCA: All ingredients are listed on the TSCA chemical substance inventory.

SARA Section 313 Ingredients: None.

California Prop 65 Ingredients: Contains Trisodium Nitroacetate, below the no significant risk level.

International:

European:

Symbol: Corrosive.

R-Sentences: C; R34.

S-Sentences: S2, S24, S25, S26, S37, S39.

Canadian:

WHMIS Hazard Class:E

SECTION XVI: OTHER INFORMATION

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 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.