

MATERIAL SAFETY DATA SHEET



ULTRADEL® D760
Developer Solution

MSDS No. 10643000 ANSI/ENGLISH

1.0 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ULTRADEL® D760

MANUFACTURER/SUPPLIER:

Amoco Chemical Company
200 East Randolph Drive
Chicago, Illinois 60601 U.S.A.

EMERGENCY HEALTH INFORMATION:
1 (800) 447-8735

EMERGENCY SPILL INFORMATION:
1 (800) 424-9300 CHEMTREC (USA)

OTHER PRODUCT SAFETY INFORMATION:
(312) 856-3304

2.0 COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS#	Range % by Wt.
1-Methyl-2-pyrrolidone (N-methylpyrrolidone)	872-50-4	60-85
Gamma-butyrolactone	96-48-0	15-40

(See Section 8.0, "Exposure Controls/Personal Protection", for exposure guidelines)

3.0 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Warning! Causes eye and skin irritation. Inhalation causes headaches, dizziness, drowsiness, nausea, and respiratory irritation. If swallowed, causes headaches, dizziness, drowsiness and nausea, and may lead to unconsciousness. Harmful or fatal if liquid is aspirated into lungs.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: Causes eye irritation.

SKIN CONTACT: Causes skin irritation.

INHALATION: Inhalation causes headaches, dizziness, drowsiness, nausea, and respiratory irritation.

INGESTION: If swallowed, causes headaches, dizziness, drowsiness and nausea, and may lead to unconsciousness. Harmful or fatal if liquid is aspirated into lungs.

HMIS CODE: (Health:2) (Flammability:1) (Reactivity:0)

NFPA CODE: (Health:2) (Flammability:1) (Reactivity:0)

4.0 FIRST AID MEASURES

EYE: Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

SKIN: Wash exposed skin with soap and water. Remove contaminated clothing and thoroughly clean and dry before reuse. Get medical attention if irritation develops.

INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

INGESTION: If swallowed, drink plenty of water, do NOT induce vomiting. Get immediate medical attention.

5.0 FIRE FIGHTING MEASURES

FLASHPOINT: 202°F(95°C) ASTM D93

UEL: Not determined.

LEL: Not determined.

AUTOIGNITION TEMPERATURE: Not determined.

FLAMMABILITY CLASSIFICATION: None

EXTINGUISHING MEDIA: Agents approved for Class B hazards (e.g., dry chemical, carbon dioxide, foam, steam) or water fog.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None identified.

FIRE-FIGHTING EQUIPMENT: Firefighters should wear full bunker gear, including a positive pressure self-contained breathing apparatus.

PRECAUTIONS: Keep away from sources of ignition (e.g., heat and open flames). Keep container closed. Use with adequate ventilation.

HAZARDOUS COMBUSTION PRODUCTS: Burning can produce carbon monoxide and/or carbon dioxide and other harmful products.

6.0 ACCIDENTAL RELEASE MEASURES

Remove mechanically or contain on an absorbent material such as dry sand or earth.

7.0 HANDLING AND STORAGE

HANDLING: Use with adequate ventilation. Keep container closed.

STORAGE: Store in cool, dry, well-ventilated area. Keep container closed.

8.0 EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE: Do not get in eyes. Wear chemical goggles.

SKIN: Do not get on skin or clothing. Wear protective clothing and gloves.

INHALATION: Use with adequate ventilation. If ventilation is inadequate, use NIOSH/MSHA certified respirator that will protect against organic vapor and dust/mist.

ENGINEERING CONTROLS: Control airborne concentrations below the exposure guidelines.

EXPOSURE GUIDELINES:

Component	CAS#	Exposure Limits
1-Methyl-2-pyrrolidone (N-methylpyrrolidone)	872-50-4	No exposure limit established
Gamma-butyrolactone	96-48-0	No exposure limit established

9.0 CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE AND ODOR: Liquid. Clear. Colorless.

pH: Not determined.

VAPOR PRESSURE: Not determined.

VAPOR DENSITY: Not determined.

BOILING POINT: 388°F(198°C) (ATSM D86)

MELTING POINT: Not determined.

SOLUBILITY IN WATER: Miscible.

SPECIFIC GRAVITY (WATER=1): 1.062 at 60°F ASTM D4052

VISCOSITY: Less than 2 cP at 20°C

10.0 STABILITY AND REACTIVITY

STABILITY: Product is moisture sensitive.

CONDITIONS TO AVOID: Avoid exposure to moisture or moist air.

MATERIALS TO AVOID: Avoid strong oxidizing agents and strong acids.

HAZARDOUS DECOMPOSITION: None identified.

HAZARDOUS POLYMERIZATION: Will not occur.

11.0 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA:

EYE IRRITATION: Testing not conducted. See Other Toxicity Data.

SKIN IRRITATION: Testing not conducted. See Other Toxicity Data.

DERMAL LD50: Testing not conducted. See Other Toxicity Data.

ORAL LD50: Testing not conducted. See Other Toxicity Data.

INHALATION LC50: Testing not conducted. See Other Toxicity Data.

OTHER TOXICITY DATA: Specific toxicity tests have not been conducted on this product. Our hazard evaluation is based on information from similar products, the ingredients, technical literature, and/or professional experience.

This product contains N-methylpyrrolidone (NMP) which has an oral LD50 of 7000 mg/kg (rat). Its dermal LD50 is 8000 mg/kg (rabbit). Twenty-day dermal application to rabbits at 0.8 ml/kg/day produced only mild local inflammatory effect. At 1.6 ml/kg/day, one rabbit died after 1 week, while three showed no significant effects other than local skin irritation. NMP also causes eye irritation. In a human patch test, no irritation developed in 24 hours. Prolonged contact produced mild, transient irritation. When applied to the skin of pregnant rats, NMP caused birth defects only at high dosages that were toxic to the mother.

No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or the International Agency for Research on Cancer (IARC). No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program (NTP) or the U.S. Occupational Safety and Health Act (OSHA).

12.0 ECOLOGICAL INFORMATION

Ecological testing has not been conducted on this product.

13.0 DISPOSAL INFORMATION

Disposal must be in accordance with applicable federal, state, or local regulations.

Since the emptied containers retain product residue, follow product insert warnings even after container is emptied.

14.0 TRANSPORTATION INFORMATION

U.S. DEPT OF TRANSPORTATION

Shipping Name Not Regulated

INTERNATIONAL INFORMATION:

Sea (IMO/IMDG)

Shipping Name Not Regulated

Air (ICAO/IATA)

Shipping Name Not Regulated

European Road/Rail (ADR/RID)

Shipping Name Not determined.

Canadian Transportation of Dangerous Goods

Shipping Name Not Regulated

15.0 REGULATORY INFORMATION

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR Part 302.4): This product is not reportable under 40 CFR Part 302.4.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR Part 355): This product is not regulated under Section 302 of SARA and 40 CFR Part 355.

SARA TITLE III SECTIONS 311/312 HAZARDOUS CATEGORIZATION (40 CFR Part 370): This product is defined as hazardous by OSHA under 29 CFR Part 1910.1200(d). Hazardous categories for this product are: Acute = yes; Chronic = no; Fire = no; Pressure = no; Reactive = no.

SARA TITLE III SECTION 313 (40 CFR Part 372): This product contains the following substance(s), which is on the Toxic Chemicals List in 40 CFR Part 372:

Component/CAS Number	Weight Percent
I-Methyl-2-pyrrolidone (N-methylpyrrolidone) 872-50-4	85

U.S. INVENTORY (TSCA): Listed on inventory.

This product contains n-methyl pyrrolidone (CAS 872-50-4) which is currently undergoing review and testing under TSCA Section 4. Notification to the U.S. EPA Office of Toxic Substances is required prior to export of this material from the United States.

OSHA HAZARD COMMUNICATION STANDARD: CNS Effects. Irritant.

WHMIS Controlled Product Classification: D2B,

EC INVENTORY (EINECS/ELINCS): In compliance.

JAPAN INVENTORY (MITI): Listed on inventory.

AUSTRALIA INVENTORY (AICS): Listed on inventory.

KOREA INVENTORY (ECL): Not determined.

CANADA INVENTORY (DSL): All of the components of this product are listed on the DSL.

PHILIPPINE INVENTORY (PICCS): Not determined.

16.0 OTHER INFORMATION

Prepared by:

Environment, Health and Safety Department

Issued: January 12, 1996

Supersedes: November 22, 1994

This material Safety Data Sheet conforms to the requirements of ANSI Z400.1.

This material safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in this data sheet which we received from sources outside our company. We believe that information to be correct but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either express or implied.