



**Material Safety Data Sheet**  
**BETANEX ULTRA HERBICIDE**

MSDS Number: 102000014576  
 MSDS Version 1.2  
 Revision Date: 04/21/2006

**SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION**

**Product Name** BETANEX ULTRA HERBICIDE  
**MSDS Number** 102000014576  
**EPA Registration No.** 264-853

Bayer CropScience  
 2 T.W. Alexander Drive  
 Research Triangle PK, NC 27709  
 USA

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)  
 For Product Information call: 1-866-99BAYER (1-866-992-2937)

**SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Desmedipham	13684-56-5	30.00

**SECTION 3. HAZARDS IDENTIFICATION**

*NOTE: Please refer to Section 11 for detailed toxicological information.*

**Emergency Overview** Caution! Harmful if swallowed. Moderate eye irritation. Avoid contact with skin, eyes and clothing. Wear natural rubber gloves, protective clothing, and goggles. Toxic to fish.

**Physical State** liquid, clear

**Appearance** yellow

**Routes of Exposure** Eye contact, Inhalation, Skin contact

**Immediate Effects**

**Eye** Moderate eye irritation.

**Skin** May cause slight irritation. Avoid contact with skin and clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

**Ingestion** Harmful if swallowed.

**SECTION 4. FIRST AID MEASURES**

**General** When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.



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<b>Eye</b>	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
<b>Skin</b>	Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.
<b>Inhalation</b>	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
<b>Notes to Physician Treatment</b>	There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

**SECTION 5. FIRE FIGHTING MEASURES**

<b>Flash Point</b>	> 93.3 °C / 199.9 °F
<b>Suitable Extinguishing Media</b>	Use appropriate extinguishing media for material that is supplying fuel.
<b>Fire Fighting Instructions</b>	<p>Keep unnecessary people away, isolate hazard area and deny entry. Dike area to prevent runoff and contamination of water sources. Cool containers with water from the farthest possible distance away. Keep out of smoke. Do not allow runoff from fire fighting to enter drains or water courses. Equipment or materials involved in pesticide fires may become contaminated.</p> <p>Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.</p>

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

<b>Personal Precautions</b>	Avoid contact with spilled product or contaminated surfaces. Wear suitable protective clothing. Refer to protective measures listed in sections 7 and 8.
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**Methods for Cleaning Up** Keep unnecessary people away, isolate hazard area and deny entry. Dike area to prevent runoff and contamination of water sources. Clean up immediately, observing precautions outlines in Section 8. Take up with absorbent material (e.g. sand, diatomaceous earth or a proprietary absorbent material). Place in a container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.

**Additional Advice** Contaminated soil may have to be removed and disposed. Do not allow product to enter streams, sewers or other waterways. Any disposal practice must be in compliance with all Federal, State/provincial, and local laws and regulations. Contact Bayer for further assistance if necessary.

**SECTION 7. HANDLING AND STORAGE**

**Handling Procedures** Handle and open container in a manner as to prevent spillage. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing.

**Storing Procedures** Store in original container. Keep container closed when not in use. Store in a cool, dry secured storage area. Do not use, pour or store near heat or open flame.

**Work/Hygienic Procedures** Handle in accordance with good industrial hygiene and safety practice. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

**SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**General Protection** These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal Considerations. Follow all label instructions.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

**Engineering Controls** Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

**Eye/Face Protection** Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.

**Hand Protection** Wear suitable gloves.



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**Body Protection**                      Wear long-sleeved shirt and long pants and shoes plus socks.

**Respiratory Protection**            When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or Industry recommendations.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance**                            yellow

**Physical State**                        liquid, clear

**pH**   2.5 - 3.3 (5 %)

**Density**                                 ca. 1.02 g/cm<sup>3</sup> at 20 °C

**SECTION 10. STABILITY AND REACTIVITY**

**Chemical Stability**                    Stable under normal conditions.

**Conditions to Avoid**                 Extremes of temperature and direct sunlight.  
 Exposure to open flame.  
 freezing

**Hazardous Reactions**                Will not occur.

**SECTION 11. TOXICOLOGICAL INFORMATION**

Only acute toxicity studies have been performed on this product as formulated. The non-acute information pertains to the technical-grade active ingredient, Desmedipham.

**Acute Oral Toxicity**                    female rat: LD50: > 2,000 mg/kg

**Acute Dermal Toxicity**                male/female rat: LD50: > 2,000 mg/kg



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**Acute Inhalation Toxicity** male/female rat: LC50: > 2.08 mg/l  
 Exposure time: 4 h  
 Determined in the form of liquid aerosol.  
 (actual)

male/female rat: LC50: > 8.4 mg/l  
 Exposure time: 1 h  
 Determined in the form of liquid aerosol.  
 Extrapolated from the 4 hr LC50.  
 (actual)

**Skin Irritation** rabbit: Slight irritation.

**Eye Irritation** rabbit: Moderate to severe eye irritant.

**Sensitization** guinea pig: Non-sensitizing.

**Chronic Toxicity** In two-year feeding studies with desmedipham in mice and rats, adverse effect were observed only in animals receiving high doses (75--1500 ppm). These include increased spleen weight, toxic hemolytic anemia (both species) and elevated methemoglobin levels (rats only, 300-1500 ppm). However, there were no significant increases in mortality rate in both species even at high dose levels. In a similar one-year study with dogs (up to 5000 ppm), toxic hemolytic anemia associated with compensatory erythropoiesis (generation of red blood cells) was the main effect noted, with a threshold level of 300 ppm. The approximate no effect level of desmedipham is 25 mg/kg per day in mice; 3 mg/kg/day in rats and 10 mg/kg/day in dogs.

**Assessment Carcinogenicity**

- ACGIH**  
None.
- NTP**  
None.
- IARC**  
None.
- OSHA**  
None.

**Reproductive & Developmental Toxicity** REPRODUCTION: Desmedipham showed no adverse effects on fertility or reproduction in a two-generation rat reproduction studies at dose levels up to 1250 mg/kg/day.

DEVELOPMENTAL TOXICITY: No teratogenic effects of desmedipham were observed in fetuses of rabbits given up to 450 mg/kg/day during gestation. In rats, ingredient 2 induced methemoglobin formation in dams at all doses tested (10-1000 ppm). However, no teratogenic or embryotoxic effects were observed in the offspring from dams administered a low dose of 10 mg/kg/day. At the higher doses (100-1000 mg/kg/day), the dose dependent, elevated methemoglobin levels were found to be maternally toxic, leading to an increased frequency of malformation.



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**Mutagenicity** Desmedipham was not mutagenic or genotoxic when tested in Ames mutation test and chromosomal aberration tests using human lymphocytes or mouse micronucleus. It was mutagenic only in a mouse lymphoma cells when tested at high doses which extended into the toxic range (50-100 mg/ml).

**SECTION 12. ECOLOGICAL INFORMATION**

**Environmental Precautions** Toxic to fish. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor runoff or drift. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**General Disposal Guidance** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container Disposal** Plastic Containers: Do not re-use empty containers. Triple rinse containers. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning.

**SECTION 14. TRANSPORT INFORMATION**

TRANSPORTATION CLASSIFICATION:  
NON-BULK:  
Not regulated for Domestic Surface Transportation

BULK:  
Environmentally Hazardous Substances, Liquid, N.O.S.( Desmedipham) // 9 // UN3082 // PG III // Marine Pollutant

IMDG CLASSIFICATION:  
Environmentally Hazardous Substances, Liquid, N.O.S.( Desmedipham) // 9 // UN3082 // PG III // Marine Pollutant

FREIGHT CLASSIFICATION:  
Compounds, Tree or Weedkilling, N.O.I.; other than poison, having a density of 20 LBS or greater per cubic foot



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**SECTION 15. REGULATORY INFORMATION**

**EPA Registration No.** 264-853

**US Federal Regulations**

**TSCA list**

None.

**US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)**

None.

**SARA Title III - Section 302 - Notification and Information**

None.

**SARA Title III - Section 313 - Toxic Chemical Release Reporting**

Desmedipham 13684-56-5 1.0%

**US States Regulatory Reporting**

**CA Prop65**

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

**US State Right-To-Know Ingredients**

Desmedipham 13684-56-5 NJ

**Canadian Regulations**

**Canadian Domestic Substance List**

None.

**Environmental**

**CERCLA**

None.

**Clean Water Section 307 Priority Pollutants**

None.

**Safe Drinking Water Act Maximum Contaminant Levels**

None.

**International Regulations**

**European Inventory of Existing Commercial Substances (EINECS)**

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**SECTION 16. OTHER INFORMATION**

NFPA 704 (National Fire Protection Association):

Health - 2 Flammability - 1 Reactivity - 0 Others - none

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason to Revise: Section 1 - Add EPA Registration No.



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