




# Material Safety Data Sheet

<b>NFPA</b>	<b>Transport Symbol</b>
	Not regulated

Preparation Date 05-Jan-2009

Revision Date 09-Jan-2009

Revision Number 2

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Code** 2121101  
**Product Name** HALOMAX 75 HERBICIDE  
**Synonyms** 1H-Pyrazole-4-Carboxylic Acid, 3-Chloro-5-[[[(4,6-Dimethoxy-2-Pyrimidinyl)Amino]Carbonyl]Amino]Sulfonyl]-1-Methyl-, Methyl Ester (9CI)  
**Formula** C<sub>13</sub>H<sub>15</sub>ClN<sub>6</sub>O<sub>7</sub>S (Halosulfuron Methyl)  
**CAS Number** 100784-20-1 (Halosulfuron Methyl)  
**EPA Registration Number** 2749-528  
**Contact**  
ACETO AGRICULTURAL  
CHEMICALS CORP.  
One Hollow Lane  
Lake Success, NY 11042-1215  
Phone: (516) 627-6000  
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Email: regulatory@aceto.com  
**ChemTrec Emergency Telephone Numbers** 1-800-424-9300  
1-703-527-3887

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

Harmful if swallowed. May be harmful if inhaled. May be harmful in contact with skin. Irritating to eyes. May cause irritation of the mucous membranes. May cause irritation of respiratory tract. May cause skin irritation.

**Appearance** Light tan, Powder.

**Physical State** Solid.

**Odor** Mild, Soapy

**OSHA Regulatory Status** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Mexico - Grade** Not available

### Potential Health Effects

**Principle Routes of Exposure** Skin contact, Inhalation.

**Acute Effects**

<b>Eyes</b>	Slight irritation. Avoid contact with eyes.
<b>Skin</b>	May be harmful by skin contact. Substance may cause slight skin irritation. Avoid contact with skin.
<b>Inhalation</b>	May be harmful if inhaled. May cause irritation of the mucous membranes. May cause irritation of respiratory tract.
<b>Ingestion</b>	Harmful if swallowed.

**Additional Acute Effects** None reasonably foreseeable.

**Chronic Effects** Avoid repeated exposure.

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions** Not available

**Interactions with Other Chemicals** Not available

**Potential Environmental Effects** Refer to approved EPA Label.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**CAS Number** 100784-20-1 (Halosulfuron Methyl)

**Formula** C13H15ClN6O7S (Halosulfuron Methyl)

**Hazardous Components**

Chemical Name	CAS-No	Weight %
Halosulfuron Methyl	100784-20-1	75

**Non-hazardous Components**

Chemical Name	CAS-No	Weight %
Other Ingredients	N/A	25

### 4. FIRST AID MEASURES

**General Advice** Show this safety data sheet to the doctor in attendance.

**Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician or Poison Control Centre immediately.

**Skin Contact** Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Remove and wash contaminated clothing before re-use. Call a physician or Poison Control Centre immediately.

<b>Inhalation</b>	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician or Poison Control Centre immediately.
<b>Ingestion</b>	Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Centre immediately.
<b>Notes to Physician</b>	Treat symptomatically
<b>Protection of First-aiders</b>	Use personal protective equipment. Avoid contact with skin, eyes and clothing.

<b>5. FIRE-FIGHTING MEASURES</b>
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<b>Flammable Properties</b>	Not available
<b>Suitable Extinguishing Media</b>	Water spray. Carbon dioxide (CO2). Dry powder. Foam.
<b>Unsuitable Extinguishing Media</b>	Not available
<b>Hazardous Combustion Products</b>	Thermal decomposition or combustion may produce hazardous gases and/or materials.

**Explosion Data**

<b>Sensitivity to mechanical impact</b>	Not available
<b>Sensitivity to static discharge</b>	Not available

**Specific Hazards Arising from the Chemical**  
 Keep product and empty container away from heat and sources of ignition

**Protective Equipment and Precautions for Firefighters**  
 As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

<b><u>NFPA</u></b>	<b>Health 1</b>	<b>Flammability 0</b>	<b>Instability 0</b>
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<b>6. ACCIDENTAL RELEASE MEASURES</b>
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<b>Personal Precautions</b>	Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Environmental Precautions</b>	Local authorities should be advised if significant spillages cannot be contained. Do not allow material to contaminate ground water system. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Should not be released into the environment.
<b>Methods for Containment</b>	Not available
<b>Methods for Cleaning up</b>	Evacuate personnel to safe areas. Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Clean contaminated surface thoroughly.
<b>Other Information</b>	Not applicable

## 7. HANDLING AND STORAGE

<b>Handling</b>	Use only in an area equipped with a safety shower. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation. Do not breathe vapours/dust. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Avoid repeated exposure.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labelled containers. Protect from moisture.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Exposure Guidelines</b>	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
<b>Engineering Controls</b>	Ensure adequate ventilation, especially in confined areas.
<b><u>Personal Protective Equipment</u></b>	
<b>Eye/face Protection</b>	Tightly fitting safety goggles.
<b>Skin Protection</b>	Protective gloves. Long sleeved clothing. Shoes plus socks.
<b>Respiratory Protection</b>	In case of insufficient ventilation wear suitable respiratory equipment.

**General Hygiene Considerations**

Handle in accordance with good industrial hygiene and safety practice. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product. For additional information consult the EPA Pesticide Label.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Light tan, Powder	
<b>Physical State</b>	Solid	
<b>Odor</b>	Mild, Soapy	
<b>pH</b>	4.8(1%aq. sol) (@22°C)	
<b>Flash Point</b>	Not available	
<b>Autoignition Temperature</b>	Not available	
<b>Boiling Point/Range</b>	Not available	
<b>Melting Point/Range</b>	168 - 171°C	
<b>Flammability Limits in Air</b>	<b>Lower</b> Not available	<b>Upper</b> Not available
<b>Vapor Pressure</b>	Not available	
<b>Vapor Density</b>	Not available	
<b>Specific Gravity</b>	Not available	
<b>Bulk Density</b>	36.1 - 38.2 lbs/ft <sup>3</sup>	
<b>Water Solubility</b>	Insoluble	
<b>Reactivity in Water</b>	Not available	
<b>Molecular Weight</b>	434.85	

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable under normal conditions.
<b>Conditions to Avoid</b>	Heat, flames and sparks. Avoid moisture.
<b>Incompatible Materials</b>	Reducing agents. Acids.
<b>Hazardous Decomposition Products</b>	Carbon monoxide, Carbon dioxide (CO <sub>2</sub> ), Nitrogen oxides (NO <sub>x</sub> ), Sulfur Oxides, Hydrogen chloride gas.
<b>Possibility of Hazardous Reactions</b>	None under normal processing

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

<b>LD50 Oral:</b>	1,287 mg/kg (rat)
<b>LD50 Dermal:</b>	> 5,000 mg/kg (rat)
<b>LC50 Inhalation:</b>	>5.7 mg/L 4H (rat)

### Chronic Toxicity

<b>Carcinogenicity</b>	There are no known carcinogenic chemicals in this product
<b>Irritation</b>	Skin,rabbit: Slighty ; Eye,rabbit: Moderately
<b>Corrosivity</b>	Not available
<b>Sensitization</b>	Not available
<b>Neurological Effects</b>	Not available
<b>Mutagenic Effects</b>	Not available
<b>Reproductive Effects</b>	Not available
<b>Developmental Effects</b>	Not available
<b>Target Organ Effects</b>	Not available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Refer to approved EPA Label.

<b>Persistence / Degradability</b>	Not available
<b>Bioaccumulation / Accumulation</b>	Not available

Mobility in Soil Not available

**13. DISPOSAL CONSIDERATIONS**

**Waste Disposal Method** Dispose of in accordance to EPA Pesticide Label Instructions.  
**Contaminated Packaging** Dispose of in accordance to EPA Pesticide Label Instructions.  
**US EPA Waste Number** Not available

**14. TRANSPORT INFORMATION**

**DOT** Not regulated  
**TDG** Not regulated  
**MEX** Not regulated  
**ICAO** Not regulated  
**IATA** Not regulated  
**IMDG/IMO** Not regulated  
**RID** Not regulated  
**ADR** Not regulated  
**ADN** Not regulated

**15. REGULATORY INFORMATION**

**International Inventories**

**U.S.A. (TSCA)** Does not Comply  
**Canada (DSL)** Does not Comply  
**EU (ELINCS)** Does not Comply  
**EU (EINECS)** Does not Comply  
**Japan (ENCS)** Does not Comply  
**China** Does not Comply  
**Korea (KECL)** Does not Comply  
**Philippines (PICCS)** Does not Comply  
**Australia (AICS)** Does not Comply

Chemical Name	U.S.A. (TSCA)	Canada (DSL)	EU (EINECS)	EU (ELINCS)
Halosulfuron Methyl	-	-	-	-
Other Ingredients	-	-	-	-

Chemical Name	Japan (ENCS)	China	Korea (KECL)	Philippines (PICCS)	Australia (AICS)

**2121101 - HALOMAX 75 HERBICIDE**

<b>Chemical Name</b>	<b>Japan (ENCS)</b>	<b>China</b>	<b>Korea (KECL)</b>	<b>Philippines (PICCS)</b>	<b>Australia (AICS)</b>
Halosulfuron Methyl	-	-	99-3-1156	-	-
Other Ingredients	-	-	-	-	-

This material as a whole is exempt from the TSCA Inventory // FIFRA Regulated Pesticide

**USA**

**Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazardous Categorization**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain any HAPs.

**State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**State Right-to-Know**

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS Hazard Class**

Not determined

**16. OTHER INFORMATION**

<b>Prepared By</b>	Environmental Health and Safety, Regulatory Affairs
<b>Preparation Date</b>	05-Jan-2009
<b>Revision Date</b>	09-Jan-2009
<b>Revision Summary</b>	Not available

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of MSDS**