

**ASULAM**

Revision Date 20-Apr-2016

Replaces Date 9-Jul-2007

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

**Product Identifier**

Product Name **ASULAM**

**Other means of identification**

**Unity #** 10000785  
**CAS Number** 2302-17-2  
**Formula** C8H9N2NaO4S  
**Synonyms** Active ingredient: Carbamic Acid, ((4-Aminophenyl)Sulfonyl)-, Methyl Ester, Monosodium Salt; Asulam Sodium Salt  
**EPA Registration Number** 9779-342

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Agriculture  
**Uses advised against** Repeated contact with food. Avoid prolonged contact with eyes, skin, and clothing.

**Details of the supplier of the safety data sheet**

**Supplier Address** WINFIELD SOLUTIONS, LLC  
 P.O. Box 64589  
 St. Paul, MN 55164-0589  
 Non-Emergency Business Inquiries: 1-855-494-6343  
 Mon – Fri 8am – 5pm (Central Standard Time)

**Emergency Telephone Number(s)**  
 ChemTrec: 1-800-424-9300  
 Medical Emergency: 1-877-424-7452 (24 hrs)

**2. HAZARDS IDENTIFICATION**

**Classification**

Acute Toxicity - Oral	Category 4
Acute Toxicity - Dermal	Category 4
Skin Corrosion/Irritation	Category 2
Carcinogenicity	Category 2

**Label elements**

### Emergency Overview

**Signal Word**

**Warning**

**Hazard statements**

Harmful if swallowed  
 Harmful in contact with skin  
 Causes skin irritation  
 Suspected of causing cancer


**Appearance**

Yellow to Brown

**Physical State**

Liquid

**Odor**

Negligible

**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention  
 Specific treatment (see supplemental first aid instructions on this label)  
 IF ON SKIN: Wash with plenty of soap and water  
 Call a POISON CENTER or doctor/physician if you feel unwell  
 If skin irritation occurs: Get medical advice/attention  
 Take off contaminated clothing and wash before reuse  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
 Rinse mouth

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

None known

**Other Information**

100 % of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonyms**

Active ingredient: Carbamic Acid, ((4-Aminophenyl)Sulfonyl)-, Methyl Ester, Monosodium Salt; Asulam Sodium Salt

Formula C8H9N2NaO4S

Chemical Name	CAS-No	Weight %	North American Hazard Indicator
Methylsulfanilylcarbamate	2302-17-2	36.2	True
Other Ingredients	N/A	63.8	False

#### 4. FIRST AID MEASURES

##### First Aid Measures

<b>General Advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician or Poison Control Centre immediately.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. 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>	Do not induce vomiting without medical advice. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Centre immediately.
<b>Protection of First-aiders</b>	Use personal protective equipment. Avoid contact with skin, eyes and clothing.

##### Most important symptoms and effects, both acute and delayed

**Main Symptoms** No information available.

##### Indication of any immediate medical attention and special treatment needed

**Notes to Physician** Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

<b><u>Flammable Properties</u></b>	Not available.
<b><u>Suitable Extinguishing Media</u></b>	Water spray. Alcohol-resistant foam. Dry chemical. Carbon dioxide (CO2).
<b><u>Unsuitable Extinguishing Media</u></b>	No information available.
<b><u>Hazardous Combustion Products</u></b>	Thermal decomposition or combustion may produce hazardous gases and/or materials.

##### Explosion Data

**Sensitivity to mechanical impact** Not available.

**Sensitivity to static discharge** 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.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective equipment. In case of insufficient ventilation, wear suitable respiratory equipment.

**Environmental Precautions** Local authorities should be advised if significant spillages cannot be contained. Prevent further leakage or spillage if safe to do so. 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.

**Methods and material for containment and cleaning up**

**Methods for Cleaning up** Evacuate personnel to safe areas. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

**Precautions for Safe Handling**

**Handling** 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 or spray mist. Avoid contact with skin, eyes and clothing. Avoid repeated exposure.

**Conditions for safe storage, including any incompatibilities**

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep in properly labelled containers.

**Incompatible Materials** Strong oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Guidelines** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methylsulfanilylcarbamate 2302-17-2	-	-	-
Other Ingredients N/A	-	-	-

**Appropriate engineering controls**

**Engineering Controls** Ensure adequate ventilation, especially in confined areas.

**Individual protection measures, such as personal protective equipment**

**Eye/face Protection** Tightly fitting safety goggles.

**Skin and body protection** Wear protective gloves and protective clothing.

**Respiratory Protection** In case of insufficient ventilation, wear suitable respiratory equipment.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

**Appearance** Yellow to Brown  
**Physical State** Liquid  
**Odor** Negligible  
**Odor Threshold** No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	7	
<b>Melting/freezing point</b>	(Asulam Sodium Salt) 212 - 215 °C	Literary Reference
<b>Boiling Point/Range</b>	No information available	
<b>Flash Point</b>	No data available	No information available
<b>Evaporation Rate</b>	Not available	
<b>Flammability Limits in Air</b>		
<b>upper flammability limit</b>	No information available	
<b>lower flammability limit</b>	Not available	
<b>Vapor Pressure</b>	No information available	
<b>Vapor Density</b>	Not available	
<b>Specific Gravity</b>	1.18 g/ml	
<b>Water Solubility</b>	Soluble	
<b>Solubility in other solvents</b>	No information available	
<b>Partition coefficient: n-octanol/water</b>	Not available	
<b>Autoignition temp (°C)</b>	No data available	Estimated
<b>Decomposition temperature</b>	No data available	
<b>Viscosity, kinematic</b>	No information available	
<b>Viscosity, dynamic</b>	Not available	
<b>Explosive Properties</b>	No information available	
<b>Oxidizing Properties</b>	No information available	

### Other Information

**Softening Point** No information available  
**Molecular Weight** 252.2  
**VOC Content** No information available  
**Density** No information available  
**Bulk Density** No information available

## 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	Not applicable.
<b>Chemical Stability</b>	Stable under normal conditions
<b>Conditions to Avoid</b>	Heat, flames and sparks.
<b>Incompatible Materials</b>	Strong oxidizing agents.
<b>Hazardous Decomposition Products</b>	Carbon Monoxide Carbon Dioxide (CO <sub>2</sub> ) Nitrogen Oxides (NO <sub>x</sub> ) Sulfur Oxides Sodium oxides
<b>Possibility of Hazardous Reactions</b>	None under normal processing

## 11. TOXICOLOGICAL INFORMATION

### Product Information

**LD50 Oral:** > 5,000 mg/kg; (rat)  
**LD50 Dermal:** 4,000 mg/kg; (rabbit)  
**LC50 Inhalation:** > 5 mg/L; 4H; (rat)

### Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methylsulfanilylcarbamate 2302-17-2	= 2 g/kg ( Rat )	> 2 g/kg ( Rabbit ) > 9400 µL/kg ( Rat )	-
Other Ingredients N/A		-	-

**The following values are calculated based on chapter 3.1 of the GHS document .**

**ATEmix (oral)** 433 mg/kg  
**ATEmix (dermal)** 1100 mg/kg

### Information on likely routes of exposure

**Eyes** Irritating to eyes. Tears. Redness. Avoid contact with eyes.  
**Skin** Harmful in contact with skin. Substance may cause slight skin irritation. Avoid contact with skin.  
**Inhalation** May be harmful by inhalation. May cause irritation of the mucous membranes. May cause allergic respiratory reaction. Avoid breathing vapors or mists.  
**Ingestion** May be harmful if swallowed. Do not ingest.

### Information on toxicological effects

**Symptoms** No information available.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Carcinogenicity** EPA has classified asulam as a Group C, possible human carcinogen, based upon thyroid and adrenal tumors in the rat.  
**Irritation** Eye, rabbit: mild  
**Eye damage/irritation** No information available.  
**Skin Corrosion/Irritation** No information available.  
**Sensitization** May cause sensitization of susceptible persons.  
**Reproductive Effects** No information available.  
**Mutagenic Effects** No information available.  
**Developmental Effects** No information available.  
**STOT - single exposure** No information available.

<b>STOT - Repeated Exposure</b>	No information available.
<b>Chronic Toxicity</b>	Possible carcinogen. EPA has classified asulam as a Group C, possible human carcinogen, based on thyroid and adrenal tumors in the rat. Avoid repeated exposure.
<b>Target Organ Effects</b>	Eyes, Skin, Thyroid, Adrenals.
<b>Aspiration Hazard</b>	No information available.

#### **Numerical measures of toxicity - Product Information**

<b>Acute Toxicity</b>	100 % of the mixture consists of ingredient(s) of unknown toxicity
<b>LD50 Oral:</b>	> 5,000 mg/kg (rat)
<b>LD50 Dermal:</b>	4,000 mg/kg (rabbit)
<b>LC50 Inhalation:</b>	> 5 mg/L 4H (rat)

### **12. ECOLOGICAL INFORMATION**

#### **Ecotoxicity**

There is no known ecological information for this product.

100 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

<b>Persistence / Degradability</b>	No information available.
<b>Bioaccumulation / Accumulation</b>	No information available.
<b>Mobility in Soil</b>	No information available.

### **13. DISPOSAL CONSIDERATIONS**

#### **Waste treatment methods**

<b>Waste Disposal Method</b>	Contact waste disposal services. Dispose of in accordance to EPA Pesticide Label Instructions.
<b>Contaminated Packaging</b>	Dispose of in accordance to EPA Pesticide Label Instructions.

### **14. TRANSPORT INFORMATION**

<b><u>DOT</u></b>	Not regulated
<b><u>TDG</u></b>	Not regulated
<b><u>MEX</u></b>	Not regulated
<b><u>ICAO</u></b>	Not regulated

<u>IATA</u>	Not regulated
<u>IMDG/IMO</u>	Not regulated
<u>RID</u>	Not regulated
<u>ADR</u>	Not regulated
<u>ADN</u>	Not regulated

## 15. REGULATORY INFORMATION

### *International Inventories*

U.S.A. (TSCA)	Does not Comply
Canada (DSL)	Does not Comply
EU (EINECS)	Does not Comply
EU (ELINCS)	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)	
Methylsulfanilycarbamate	-	-	Present	-	
Other Ingredients	-	-	-	-	
Chemical Name	Japan (ENCS)	China	Korea (KECL)	Philippines (PICCS)	Australia (AICS)
Methylsulfanilycarbamate	-	-	-	-	Present
Other Ingredients	-	-	-	-	-

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

### *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**

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No



**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**State Right-to-Know**

This product does not contain any State Right-to-Know chemicals.

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

**Canada****WHMIS Statement**

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.

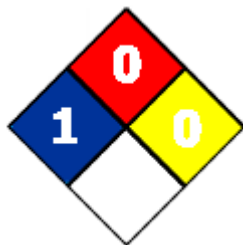
<b>16. OTHER INFORMATION</b>
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**NFPA**  
**Health** 1

**Flammability** 0

**Instability** 0

**Physical Hazard** 0



**Preparation Date**  
**Revision Date**  
**Revision Summary**  
Not available

28-Jun-2006  
12-Nov-2013

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**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**