

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

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. Wash contaminated clothing before reuse. Call a physician or Poison Control Centre immediately.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician or Poison Control Centre immediately.
Ingestion	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.
Protection of First-aiders	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

<u>Flammable Properties</u>	Not available.
<u>Suitable Extinguishing Media</u>	Water spray. Alcohol-resistant foam. Dry chemical. Carbon dioxide (CO2).
<u>Unsuitable Extinguishing Media</u>	No information available.
<u>Hazardous Combustion Products</u>	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
Methylsulfanilyl carbamate 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>
pH	7	
Melting/freezing point	(Asulam Sodium Salt) 212 - 215 °C	Literary Reference
Boiling Point/Range	No information available	
Flash Point	No data available	No information available
Evaporation Rate	Not available	
Flammability Limits in Air		
upper flammability limit	No information available	
lower flammability limit	Not available	
Vapor Pressure	No information available	
Vapor Density	Not available	
Specific Gravity	1.18 g/ml	
Water Solubility	Soluble	
Solubility in other solvents	No information available	
Partition coefficient: n-octanol/water	Not available	
Autoignition temp (°C)	No data available	Estimated
Decomposition temperature	No data available	
Viscosity, kinematic	No information available	
Viscosity, dynamic	Not available	
Explosive Properties	No information available	
Oxidizing Properties	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

Reactivity	Not applicable.
Chemical Stability	Stable under normal conditions
Conditions to Avoid	Heat, flames and sparks.
Incompatible Materials	Strong oxidizing agents.
Hazardous Decomposition Products	Carbon Monoxide Carbon Dioxide (CO ₂) Nitrogen Oxides (NO _x) Sulfur Oxides Sodium oxides
Possibility of Hazardous Reactions	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.

STOT - Repeated Exposure	No information available.
Chronic Toxicity	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.
Target Organ Effects	Eyes, Skin, Thyroid, Adrenals.
Aspiration Hazard	No information available.

Numerical measures of toxicity - Product Information

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

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

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

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

14. TRANSPORT INFORMATION

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

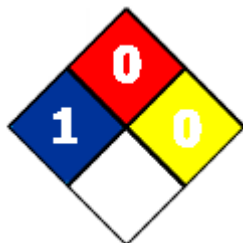
16. OTHER INFORMATION

NFPA
Health 1

Flammability 0

Instability 0

Physical Hazard 0



Preparation Date

28-Jun-2006

Revision Date

12-Nov-2013

Revision Summary

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