Emergency Contact Information:

AccuStandard, Inc. 1-203-786-5290

Tel: 203-786-5290 Fax: 203-786-5287 SAFETY DATA SHEET

Hours: Monday to Friday 8:00am to 5:00pm EST

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 - Product Identifiers

Catalog Name: P-1013N

Description: S-Metolachlor

CAS No.: 87392-12-9

1.2 - Relevant Identified Uses of the Substance or Mixture

Laboratory Chemical Reference Material

AccuStandard, Inc 125 Market St., New Haven, CT 06513 USA

1.3 - Supplier Details

Company: AccuStandard, Inc. 125 Market St. New Haven, CT 06513 USA

Telephone Number: 203-786-5290

Fax: 203-786-5287

Email: edocs@accustandard.com

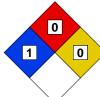
1.4 - Emergency Telephone Number

Emergency Phone #: AccuStandard, Inc. 1-203-786-5290 Hours: Monday to Friday 8:00am to 5:00pm EST

SECTION 2 - HAZARDS IDENTIFICATION

2.1 - GHS Label Elements





| 1 | HEALTH |
|---|-----------------|
| 0 | FLAMMABILITY |
| 0 | PHYSICAL HAZARD |

Signal Word: Warning

Hazard Codes:

H315 - Irritating to skin. (Skin corrosion/irritation, category 2)

H317 - May cause allergic skin reaction. (Sensitization, skin, category 1)

H317 - May cause skin sensitization. (Sensitization, skin, category 1)

H332 - Harmful if inhaled. (Acute toxicity, inhalation, category 4)

H335 - May be irritating to mucous membrane and upper respiratory system. (Specific target organ toxicity, single exposure; Respiratory tract irritation, category 4)

H401 - Toxic to fish and other water organisms.

H413 - May cause long-term adverse effects in the aquatic environment.

Precautionary Codes:

P202 - This product should only by used by persons trained in the safe handling of hazardous chemicals.

P235 - Store in a cool dry place.

SECTION 2 - HAZARDS IDENTIFICATION - continued

2.1 - GHS Label Elements - continued

P262 - Do not get in eyes, on skin or clothing.

P264 - Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available.

P284 - Respiratory Protection: If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), or a risk assessment shows air-purifying respirators are appropriate, use of a NIOSH/MSHA approved air supplied respirator is advised. Use a full-face respirator with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges in absence of proper environmental control. Always use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Engineering and/or administrative controls should be implemented to reduce exposure.

P338 - Eye contact: Immediately flush with plenty of water. After initial flushing, remove and contact lenses and continue flushing for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers.

P360 - Skin contact: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

P404 - Store in a tightly closed container.

2.2 - Other Hazards

2.2.1 - Symptom of Exposure Health/Environment

May cause skin sensitization. (Sensitization, skin, category 1)

May cause allergic skin reaction. (Sensitization, skin, category 1)

Suspected endocrine toxicant: May cause diseases such as hypothyroidism, diabetes mellitus, hypoglycemia, reproductive disorders, and cancer.

Toxic to fish and other water organisms. (H401)

May cause long-term adverse effects in the aquatic environment. (H413)

2.2.2 - Potential Health Effects

May be irritating to eyes.

Irritating to skin. (Skin corrosion/irritation, category 2)

May be harmful if absorbed through the skin. (Acute toxicity, dermal, category 5)

May be irritating to mucous membrane and upper respiratory system. (Specific target organ toxicity, single exposure; Respiratory tract irritation, category 4)

Harmful if inhaled. (Acute toxicity, inhalation, category 4)

May be harmful if swallowed. (Acute toxicity, oral, category 5)

2.2.3 - Routes of Entry

Inhalation, ingestion or skin contact.

2.2.4 - Carcinogenicity

This product is or contains a component that is not listed (ACGIH, IARC, NTP, OSHA) as a cancer causing agent.

SECTION 3 - COMPOSITION / ANALYTES DATA

Description: S-Metolachlor Synonyms: 2-chloro-N-(2-ethyl-6-methylphenyl)-N-[(1S)-2-methoxy-1-methylethyl]acetamide Molecular Weight: 283.79 Molecular Formula: C15H22CINO2 EC#: N/A Index#: 607-432-00-4

SECTION 3 - COMPOSITION / ANALYTES DATA - continued

| | | | ACGIH -TLV (mg/m ³) | | OSHA -PEL (mg/m ³) | | g/m³) | |
|---------------|------------|-----------------|---------------------------------|------|--------------------------------|-----|-------|------|
| Analyte | CAS Number | % Concentration | TWA | STEL | Skin | TWA | STEL | Skin |
| S-Metolachlor | 87392-12-9 | 100.000 | | | | | | |

SECTION 4 - FIRST AID MEASURES

4.1 - First Aid Procedures - General

Get medical assistance for all cases of overexposure.

4.2 - Eye Contact

Eye contact: Immediately flush with plenty of water. After initial flushing, remove and contact lenses and continue flushing for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. (P338)

4.3 - Skin Contact

Skin contact: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse. (P360)

4.4 - Inhalation

Inhalation: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

4.5 - Ingestion

Ingestion: Call a physician or poison control center immediately. ONLY induce vomiting at the instructions of a physician. Never give anything by mouth to an unconscious person.

SECTION 5 - FIRE FIGHTING MEASURES

5.1 - Flammable Properties

During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

5.2 - Extinguishing Media

Use alcohol foam, carbon dioxide, dry chemical, or water spray when fighting fires involving this material.

5.3 - Protection of Firefighters

As in any fire, wear self-contained breathing apparatus pressure demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 - Spill Response

Wear suitable protective equipment listed under Exposure Controls / Personal Protection. Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards. Contain the release and eliminate its source, if this can be done without risk. Dispose as hazardous waste. Comply with Federal, State and local regulations.

SECTION 7 - HANDLING AND STORAGE

Store in a tightly closed container. (P404)

Store in a cool dry place. (P235)

Avoid inhalation.

Use with adequate ventilation. (P271)

Do not get in eyes, on skin or clothing. (P262)

SECTION 7 - HANDLING AND STORAGE - continued

Avoid prolonged or repeated exposure.

This product should only by used by persons trained in the safe handling of hazardous chemicals. (P202)

SECTION 8 - EXPOSURE CONTROLS

8.1 - Engineering Controls/PPE

Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available. (P264)

8.2 - General Hygene Considerations

Respiratory Protection: If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), or a risk assessment shows air-purifying respirators are appropriate, use of a NIOSH/MSHA approved air supplied respirator is advised. Use a full-face respirator with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges in absence of proper environmental control. Always use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Engineering and/or administrative controls should be implemented to reduce exposure.

Material should be handled or transferred in an approved fume hood or with adequate ventilation.

Compatible chemical-resistant protective gloves must be worn to prevent skin contact.

Safety glasses with side shields must be worn at all times.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid Odor: N/A Odor Threshold: N/A pH: N/A Melting Point: -61 °C Boiling Point: 334 °C Flash Point: N/A Evaporation Rate (Butyl Acetate=1): N/A Flammability Class: N/A Lower Flammability Level: N/A Upper Flammability Level: N/A Vapor Pressure: 3.7 mPa @ 25 °C Vapor Density (Air = 1): N/A Specific Gravity: 1.12 g/cm3 Solubility in Water: 480 mg/L Partition Coefficient: log Pow: 3.05 Autoignition Temperature: N/A Decomposition Temperature: N/A Viscosity: N/A VOC Content: N/A Percent Volatile: N/A

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable Materials to Avoid: Oxidizers Hazardous Decomposition: Oxides of carbon and nitrogen; Hydrogen chloride Hazardous Polymerization: Will not occur Condition to Avoid: Excessive heat

SECTION 11 - TOXICOLOGICAL INFORMATION

Human Health Toxicity

See section 2 for specific toxicological information for the ingredients of this product. LD50 (Oral): Rat - 2577 mg/kg LD50 (Dermal) : Rat - >2000 mg/kg LC50 (Inhalation): Rat - >2.91 mg/L No other information related to the toxicological properties of this product is available at this time.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Toxicity

By complying with sections 6 and 7 there should be no release to the environment.

LC50 (Fish): 1.23 mg/L 96H

EC50 (Aquatic Invertebrate): 0.008 mg/L 72H

BCF: 69 - Low threshold for concern Low potential to bioaccumulate

No other information related to the ecological properties of this product is available at this time.

SECTION 13 - DISPOSAL CONSIDERATIONS

Recycle or incinerate at any EPA approved facility or dispose in compliance with Federal, State and local regulations. Empty containers must be triple-rinsed prior to disposal.

SECTION 14 - TRANSPORT INFORMATION

Transportation Information (DOT/IATA) UN Number: UN3082 UN Shipping Class: 9 UN Packing Group: III UN Proper Shipping Name: Environmentally hazardous substance; liquid, n.o.s. Poison by Inhalation: No Marine Pollutant: No

SECTION 15 - REGULATORY INFORMATION

The CAS number of this product is NOT listed on the TSCA Inventory.

This product is NOT subject to SARA section 313 reporting requirements.

For laboratory, research and development use only. Not for manufacturing or commercial purposes.

In addition to federal and state regulations, local regulations may apply. Check with your local regulatory authorities.

SECTION 16 - OTHER INFORMATION

This document has been designed to meet the requirements of OSHA, ANSI, GHS and CHIPs regulations.

The statements contained herein are offered for informational purposes only and are based on technical data that we believe to be accurate. The manufacturer will not assume any liability for the accuracy and completeness of this information. Final determination of the suitability of the material is the responsibility of the user. Although certain hazards are described herein, the user should not presume that these are the only hazards that exist. Since conditions and manner of use are outside of the manufacturers control, we make

NO WARRANTY OF MERCHANTABILITY, EXPRESSED OR IMPLIED, AND ASSUME NO LIABILITY RESULTING FROM ITS USE.

Legend : N/A = Not Available ND = Not Determined NR = Not Regulated

Alteration of any information contained herein without written permission from the manufacturer is strictly prohibited.

HMIS/NFPA HAZARD INDEX

- 0 Minimal
- 1 Slight
- 2 Moderate
- 3 Serious
- 4 Severe

* - Additional Hazard

GHS HAZARD INDEX

Category 1 - Most Severe

Category 5 - Least Severe

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