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MATERIAL SAFETY DATA SHEET

S-metolachlor 96% EC

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Shandong Qiaochang Chemical Co., Ltd.

No. 519, 7 Wutong Road, Binbei Town, Binzhou City, Shangdong Province, China

Tel.: 86-543-2226175

Product Name: S-metolachlor 96% EC **Chemical Name of Active Ingredient:**

Mixture of:

(aRS, 1 S)-2-chloro-N-(6-ethyl-o-tolyl)-N-(2-methoxy-1methylethyl)acetamide (80-100%) and: (aRS, 1 R)-2-chloro-N-(6-ethyl-o-tolyl)-N-(2-methoxy-1methylethyl)acetamide (20-0%) (IUPAC)

Chemical Formula of Active Ingredient:

C₁₅H₂₂CINO₂

CAS No.:

87392-12-9 (S-isomer) 178961-20-1 (R-isomer)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Eye irritation (Category 2A), H319

Acute aquatic toxicity (Category 1), H400

Chronic aquatic toxicity (Category 1), H410

2.2 GHS Label elements, including precautionary statements

Pictogram





Signal word: Warning

Hazard statement(s)

H319 Cause serious eye irritation.

H400 Acute aquatic toxicity.

H410 Very toxic to aquatic life with long lasting effects.

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Precautionary statement(s)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/ eye protection/ face protection.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see supplemental first aid instructions on this label).

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

P501 Dispose of contents/ container to an approved waste disposal plant.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	Cas No.	EC No.	Pictogram Hazard statements	Content (g/L)	Content (w/w)
S-metolachlor	87392-12-9	257-060-8	H319, H400, H410	960	88%
Solvesso 200ND		922-153-0	H304, H401, H411	118.9	10.9%
Others				Up to 1 L	100%

SECTION 4: FIRST AID MEASURES

If poisoning is suspected, immediately contact a physician, the nearest hospital, or the nearest Poison Control Center. Tell the person contacted the complete product name, and the type and amount of exposure. Describe any symptoms and follow the advice given.

Ingestion: DO NOT INDUCE VOMITING. If victim is fully conscious, immediately give a large quantity of water to drink and get medical attention. Never give anything by mouth to an unconscious person.

Eye contact: Immediately rinse eyes with a large amount of running water. Hold eye lids apart to rinse the entire surface of the eyes and lids. Do not apply any medicating agents except on the advice of a physician.

Skin Contact: Wash with plenty of soap and water, including hair and under fingernails. Do not apply any medicating agents except on the advice of a physician. Remove contaminated

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clothing and decontaminate prior to use.

Inhalation: Move victim from contaminated area to fresh air. Apply artificial respiration if necessary.

Notes to Physicia

There is no specific antidote if this product is ingested.

Skin reactions have been treated with antihistamines and ointments containing an anti-inflammatory agent.

Induction of emesis is not recommended due to the large amount of petroleum solvent in this product, which could cause chemical pneumonitis if aspirated. If ingested, lavage stomach, taking care to avoid aspiration of stomach contents into the lungs.

Be alert for compromised airway.

Treat symptomatically.

An aqueous suspension of activated charcoal can be administered to absorb remaining toxicant.

Medical Condition Likely to be Aggravated by Exposure Individuals with allergic history or pre-existing dermatitis should use extra care in handling this product.

SECTION 5: FIREFIGHTING MEASURES

In Case of Fire Use dry chemical, foam, or CO2 extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated.

SECTION 6: ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Store the material in a well-ventilated, secure area out of the reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco usage, and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling. Wear chemical safety glasses with side shields or chemical goggles, rubber gloves, rubber boots, long-sleeved shirt, long pants, head covering, and a NIOSH-approved chemical cartridge respirator with organic vapor cartridges and either a P-100 or P-95 pre-filters or use a self-contained breathing apparatus (SCBA). For small spills, cover the spill with an absorbent material such as pet litter. Sweep up and place in an approved chemical container. Wash the spill area with water containing a strong detergent, absorb with pet litter or other absorbent material, sweep up and place in a chemical container. Seal the container and handle in an approved manner. Flush the area with water to remove any residue. Do not allow wash water to contaminate water supplies.

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SECTION 7: HANDLING AND STORAGE

Store the material in a well-ventilated, secure area out of the reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco usage, and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.

Eye Contact: To avoid eye contact, wear safety glasses with side shields or chemical goggles. Skin Contact: To avoid skin contact, wear rubber gloves, rubber boots, long-sleeved shirt, long pants and a head covering.

Inhalation: To avoid breathing spray or mist, wear a NIOSH-approved chemical cartridge respirator with organic vapor cartridges and either a P-100 or P-95 pre-filters or use a supplied-air respirator.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form Golden Brown Liquid

Odor Sweet Odor

Specific

1.09 g/cc @ 20°C

pH 5.5(1% solution in H₂O @ 25°C)

SECTION 10: STABILITY AND REACTIVITY

Reactivity Stability: Stable Under Standard Conditions

Hazardous Polymerization: Will Not Occur

Conditions to Avoid: None Known

Hazardous Decomposition Products: None Known

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies:

Ingestion: Slightly Toxic; Oral LD₅₀ (Rat):3,425 mg/kg body weight **Dermal:** Slightly Toxic; Dermal LD₅₀ (Rabbit): > 2,000 mg/kg body weight **Inhalation:** Slightly Toxic; Inhalation LC₅₀ (Rat): > 2.61 mg/l air - 4 hours

Eye Contact: Moderately Irritating (Rabbit)
Skin Contact: Slightly Irritating (Rabbit)
Skin Sensitization: Not a skin sensitizer

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SECTION 12: ECOLOGICAL INFORMATION

As per S-metolachlor Technical information:

Birds Acute oral LD_{50} for bobwhite quail and mallard ducks >2510 mg/kg. Dietary LC_{50} (8 d) for bobwhite quail and mallard ducks >5620 ppm.

Fish LC₅₀ (96 h) for rainbow trout 1.2, bluegill sunfish 3.2 mg/l.

Daphnia LC₅₀ (48 h) 11.2 mg/l.

Algae EC₅₀ (72 h) 0.006-0.14 mg/l.

Bees LD₅₀ (oral) >0.085 mg/bee; (contact) >0.2 mg/bee.

Worms LC₅₀ (14 d) for earthworms 570 mg/kg soil.

Environmental Fate

S-Metolachlor:

No data available for the formulation. The information presented here is for the active ingredient, s-metolachlor. A thorough review of environmental information is not possible in this document. For additional information call the toll free number listed in Section 16.

ENVIRONMENTAL PERSISTENCE/MOBILITY: Degrades on soil in the light ($t1/2 \sim 95$ d). Primary aerobic soil degradation ($t1/2 \sim 9$ d) is more rapid than secondary degradation (t1/2 = 68 d). Mobility classified as high to medium in various soils (Koc = 110 to 369).

SECTION 13: DISPOSAL CONSIDERATIONS

Check government regulations and local authorities for approved disposal of this material. Dispose in accordance with applicable laws and regulations.

SECTION 14: TRANSPORT INFORMATION

IMO Classification

Proper Shipping Name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, Liquid, N.O.S. S-metolachlor 960EC

Class: 9 UN No.: 3082

Packaging Group III
Marine Pollutant

SECTION 15: REGULATORY INFORMATION

European/International Regulation:

H319 Cause serious eye irritation.

Acute aquatic toxicity (Category 1), H400

H410 Very toxic to aquatic life with long lasting effects.

SECTION 16: OTHER INFORMATION

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