SAFETY DATA SHEET

1. PRODUCT

1.1 Product identifiers

Name: Pretilachlor CAS-No.: 51218-49-6

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Laboratory chemicals, Manufacture of substances

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Acute toxicity, Inhalation (Category 3), H331

Skin irritation (Category 2), H315

Acute aquatic toxicity (Category 1), H400

Chronic aquatic toxicity (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

| Pictogram | |
|-------------------------------|--|
| Signal word | Danger |
| Hazard statement(s) | H315 Causes skin irritation. H331 Toxic if inhaled. H410 Very toxic to aquatic life with long lasting effects. |
| Precautionary statement(s) | P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear protective gloves. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P311 Call a POISON CENTER or doctor/ physician. P321 Specific treatment (see supplemental first aid instructions on this label). P332 + P313 If skin irritation occurs: Get medical advice/ attention. P362 Take off contaminated clothing and wash before reuse. P391 Collect spillage. P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. P501 Dispose of contents/ container to an approved waste disposal plant. |

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms: 2-Chloro-2,6-diethyl-N-(2-propoxyethyl)acetanilide

Formula: $C_{17}H_{26}CINO_2$ CAS-No.: 51218-49-6

Hazardous components

| Component | Classification | Concentration | |
|--|---|---------------|--|
| Acetamide, N-(2,6-diethylphenyl)-N-(2-propoxyethyl)- | | | |
| | Acute Tox. 3; Skin Irrit. 2; Aquatic Acute 1; Aquatic Chronic 1; H315, H331, H410 | - | |

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.2 Indication of any immediate medical attention and special treatment needed

no data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for

disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Normal measures for preventive fire protection.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

| Eye/face protection | Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). |
|------------------------------------|---|
| Skin protection | Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. |
| Body Protection | Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. |
| Respiratory protection | Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). |
| Control of environmen tal exposure | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. |

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| Appearance | Form: liquid Colour: colourless |
|---|---|
| Odour | no data available |
| Odour Threshold | no data available |
| pH | no data available |
| Melting point/freezing point | no data available |
| Initial boiling point and boiling range | 135 °C (275 °F) at < 0.001 hPa (< 0.001 mmHg) |
| Flash point | no data available |

| Evaporation rate | no data available |
|--|---|
| Flammability (solid, gas) | no data available |
| Upper/lower flammability or explosive limits | no data available |
| Vapour pressure | < 0.001 hPa (< 0.001 mmHg) at 20 °C (68 °F) |
| Vapour density | no data available |
| Relative density | 1.076 g/cm3 at 20 °C (68 °F) |
| Water solubility | insoluble |
| Partition coefficient: n-octanol/water | log Pow: 4.29 |
| Auto-ignition temperature | no data available |
| Decomposition temperature | no data available |
| Viscosity | no data available |
| Explosive properties | no data available |
| Oxidizing properties | no data available |

9.2 Other safety information

no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Other decomposition products - no data available

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - rat - 2,200 mg/kg LC50 Inhalation - rat - 4 h - > 2,800 mg/m3

LD50 Dermal - rat - > 3,100 mg/kg

no data available

Skin corrosion/irritation

Skin - rabbit Result: Skin irritation

Serious eye damage/eye irritation

Eyes - rabbit

Result: Mild eye irritation

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available no data available

Specific target organ toxicity -single exposure

no data available

Specific target organ toxicity -repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

RTECS: AB5427000

12. ECOLOGICAL INFORMATION

12.1 Toxicity

| Toxicity to fish | LC50 - other fish - 5.3 mg/l - 48.0 h Toxicity to algae EC50 - Chlorella vulgaris (Fresh water algae) - 0.7 mg/l - 72 h |
|---|--|
| Toxicity to daphnia and other aquatic invertebrates | No data available |
| Toxicity to algae | No data available |
| Toxicity to bacteria | No data available |

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

UN number: 3082 Class: 9 Packing group: III EMS-No: F-A, S-F

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Acetamide, N-(2,6-

diethylphenyl)-N-(2-propoxyethyl)-)
Marine pollutant: Marine pollutant

IATA

UN number: 3082 Class: 9 Packing group: III

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Acetamide, N-(2,6-diethylphenyl)-N-(2-

propoxyethyl)-)

Further information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

15. REGULATORY INFORMATION

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

| Component | CAS-No. | Revision Date |
|--|------------|---------------|
| Acetamide, N-(2,6-diethylphenyl)-N-(2-propoxyethyl)- | 51218-49-6 | |

New Jersey Right To Know Components

| Component | CAS-No. | Revision Date |
|--|------------|---------------|
| Acetamide, N-(2,6-diethylphenyl)-N-(2-propoxyethyl)- | 51218-49-6 | |

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox. Acute toxicity

Aquatic Acute Acute aquatic toxicity

Aquatic Chronic Chronic aquatic toxicity

H315 Causes skin irritation.

H331 Toxic if inhaled.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

HMIS Rating

Health hazard: 3

Chronic Health Hazard:

Flammability: 0

Physical Hazard 0

NFPA Rating

Health hazard: 2

Fire Hazard: 0

Reactivity Hazard: 0