Chemical Safety Data Sheet MSDS / SDS

[(3,5,6-trichloropyridin-2-yl)oxy]acetic acid SDS

Revision Date:2024-04-25 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name: [(3,5,6-trichloropyridin-2-yl)oxy]acetic acid

CAS: 55335-06-3

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

Relevant identified uses: For R&D use only. Not for medicinal, household or other use.

Uses advised against: none

Company Identification

Company: Chemicalbook.in

Address: 5 vasavi Layout Basaveswara Nilayam Pragathi Nagar Hyderabad, India -500090

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SECTION 2: Hazards identification

Classification of the substance or mixture

Acute toxicity - Category 4, Oral
Skin sensitization, Category 1

Eye irritation, Category 2
Specific target organ toxicity – repeated exposure, Category 2
Hazardous to the aquatic environment, short-term (Acute) - Category Acute 1
Hazardous to the aquatic environment, long-term (Chronic) - Category Chronic 1

GHS label elements, including precautionary statements

Pictogram(s)

Signal word Warning

Hazard statement(s)

H302 Harmful if swallowed
H317 May cause an allergic skin reaction
H319 Causes serious eye irritation
H373 May cause damage to organs through prolonged or repeated exposure
H410 Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

Prevention

P264 Wash ... thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.

Response

P301+P317 IF SWALLOWED: Get medical help.
P330 Rinse mouth.
P302+P352 IF ON SKIN: Wash with plenty of water/...
P333+P317 If skin irritation or rash occurs: Get medical help.
P321 Specific treatment (see ... on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P319 Get medical help if you feel unwell.
P391 Collect spillage.

Storage

none

Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in classification

no data available

SECTION 3: Composition/information on ingredients

Substance

Chemical name:	[(3,5,6-trichloropyridin-2-yl)oxy]acetic acid
Common names and synonyms:	[(3,5,6-trichloropyridin-2-yl)oxy]acetic acid
CAS number:	55335-06-3
EC number:	259-597-3
Concentration:	100%

SECTION 4: First aid measures

Description of necessary first-aid measures

If inhaled

Fresh air, rest.

Following skin contact

Remove contaminated clothes. Rinse and then wash skin with water and soap.

Following eye contact

Rinse with plenty of water for several minutes (remove contact lenses if easily possible).

Following ingestion

Rinse mouth.

Most important symptoms/effects, acute and delayed

no data available

Indication of immediate medical attention and special treatment needed, if necessary

Skin decontamination. Skin contamination should be treated promptly by washing with soap and water. Contamination of the eyes should be treated immediately by prolonged flushing of the eyes with large amounts of clean water. If dermal or ocular irritation persists, medical attention should be obtained without delay. Other herbicides

SECTION 5: Firefighting measures

Suitable extinguishing media

In case of fire in the surroundings, use appropriate extinguishing media.

Specific hazards arising from the chemical

Not combustible.

Special protective actions for fire-fighters

In case of fire in the surroundings, use appropriate extinguishing media.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Sweep spilled substance into covered containers. Wash away remainder with plenty of water.

Environmental precautions

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Sweep spilled substance into covered containers. Wash away remainder with plenty of water.

Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

SECTION 7: Handling and storage

Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

Conditions for safe storage, including any incompatibilities

Keep in the dark.

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear safety spectacles.

Skin protection

Protective gloves.

Respiratory protection

Use local exhaust.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties and safety characteristics

Physical state:	WHITE OR COLOURLESS FLUFFY CRYSTALS.
Colour:	Fluffy, colorless solid
Odour:	no data available
Melting point/freezing point:	148-150°C
Boiling point or initial boiling point and boiling range:	290°C
Flammability:	Not combustible.
Lower and upper explosion limit/flammability limit:	no data available
Flash point:	171°C
Auto-ignition temperature:	no data available
Decomposition temperature:	208°C
pH:	no data available

Kinematic viscosity:	no data available
Solubility:	In acetone 581, acetonitrile 92.1, hexane 0.09, toluene 19.2, dichloromethane 24.9, methanol 665, ethyl acetate 271 (all in g/l)
Partition coefficient n-octanol/water:	no data available
Vapour pressure:	1.26X10-6 mm Hg @ 25 deg C
Density and/or relative density:	1.669 g/cm3
Relative vapour density:	no data available
Particle characteristics:	no data available

SECTION 10: Stability and reactivity

Reactivity

Decomposes on heating and under the influence of UV light. This produces toxic and corrosive fumes including hydrogen chloride (see ICSC 0163) and nitrogen dioxide (see ICSC 0930).

Chemical stability

no data available

Possibility of hazardous reactions

Decomposes on heating and under the influence of UV light. This produces toxic and corrosive fumes including hydrogen chloride (see ICSC 0163) and nitrogen dioxide (see ICSC 0930).

Conditions to avoid

no data available

Incompatible materials

no data available

Hazardous decomposition products

When heated to decomposition it emits toxic fumes of chloride ion and nitric oxides.

SECTION 11: Toxicological information

Acute toxicity

Oral: LD50 Rat (male) oral 729 mg/kg

Inhalation: LC50 Rat inhalation >256 ppm/4 hr

Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

Cancer Classification: Group D Not Classifiable as to Human Carcinogenicity

Reproductive toxicity

no data available

STOT-single exposure

May cause mechanical irritation.

STOT-repeated exposure

no data available

Aspiration hazard

A nuisance-causing concentration of airborne particles can be reached quickly when dispersed.

SECTION 12: Ecological information

Toxicity

Toxicity to fish: LC50 Rainbow trout 117 mg/l/96 hr

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

Persistence and degradability

AEROBIC: Under aerobic soil metabolism conditions, triclopyr, at 1 ppm, degraded with half-lives of 8 and 18 days in silty clay loam and silt loam soils, respectively(1). The non-volatile degradates observed during the study were 3,5,6-trichloro-2-pyridinol (TCP) and 3,5,6-trichloro-2-methoxypyridine (TMP)(1); they were not persistent (max concns of 26 and 8%, respectively, were seen after <30 days of incubation)(1). The ultimate degradate was carbon dioxide (at 300 days post-treatment, approx 70 and 80% of the applied radioactivity in the silt loam and silty clay soils, respectively)(1). Triclopyr degraded slowly (half-life = 142 days) in a silty clay soil:water system incubated aerobically for 30 days(1). The only degradate observed was 3,5,6-trichloro-2-pyridinol at <5% of the amount applied after 30 days(1). Triclopyr was applied to the top layer of a column packed with loam soil(1). Water, equivalent to 2.5 cm of precipitation was leached through the column every second day(1). After 54 days, residues of triclopyr were found in the 10-cm layers of the soil; the residues were triclopyr and the metabolites, 3,5,6-trichloro-2-pyridinol and 2-methoxy-3,5,6-trichloropyridine, accounting for 5,85, and 10%, respectively, of the total of the residues which, in turn, was equivalent to 65% of the amount applied to the top layers(1). No residues were detected in the lower soil layers(1).

Bioaccumulative potential

An estimated BCF of 3 was calculated for triclopyr(SRC), using an estimated log Kow of 2.53(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is

low(SRC).

Mobility in soil

Koc values for triclopyr range from 1.5 to 134 at pH values of 5.0 to 7.7(1). According to a classification scheme(2), these Koc values suggest that triclopyr will have very high to high mobility in soil(SRC). Based on adsorption/desorption studies using sand, sandy loam, silt loam, and clay loam soils, unaged triclopyr was very mobile. Freundlich Kd values ranged from 0.165 to 0.975 ml/g(3); Kocs were 25-384 ml/g. Adsorption was not correlated with CEC or organic carbon content(3). Kd values for triclopyr on four soils ranged from 0.08 to 0.61 ml/g(4).

Other adverse effects

no data available

SECTION 13: Disposal considerations

Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

UN Number

ADR/RID: no data available
IMDG: no data available
IATA: no data available

UN Proper Shipping Name

ADR/RID: no data available

IMDG: no data available
IATA: no data available

Transport hazard class(es)

ADR/RID: no data available
IMDG: no data available
IATA: no data available

Packing group, if applicable

ADR/RID: no data available
IMDG: no data available
IATA: no data available

Environmental hazards

ADR/RID: Yes
IMDG: Yes
IATA: Yes

Special precautions for user

no data available

Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

European Inventory of Existing Commercial Chemical Substances (EINECS)

Listed.

EC Inventory

Listed.

United States Toxic Substances Control Act (TSCA) Inventory

Listed.

China Catalog of Hazardous chemicals 2015

Not Listed.

New Zealand Inventory of Chemicals (NZIoC)

Listed.

(PICCS)

Not Listed.

Vietnam National Chemical Inventory

Listed.

IECSC)

Not Listed.

Korea Existing Chemicals List (KECL)

Listed.

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

ECHA - European Chemicals Agency, website: https://echa.europa.eu/