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MATERIAL SAFETY DATA SHEET

MSDS No: MSDS/ACE/FG-027

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

1.1 Product Identification & Company

Common Name : Chlorimuron Ethyl Technical
Manufacturer / Supplier : Bharat Rasayan Limited
1501, Vikram Tower, 'Rajendra Place,
New Delhi – 110008, INDIA
Emergency Phones : +91-11-43661120, 1104 Fax 43661100
CAS No. : 90982-32-4

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

Identified uses : Laboratory chemicals, Manufacture of substances

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute toxicity, Inhalation (Category 4), H332

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

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word	Warnin
Hazard statement(s)	
H332	Harmful if inhaled
Precautionary statement(s)	none
Supplemental Hazard statements:	none

2.3 Other hazards – none

Section 3: Composition/information on ingredients

3.1 Substances

Formula	:	C ₁₅ H ₁₅ ClN ₄ O ₆ S
Molecular weight	:	414.82 g/mol
CAS-No.	:	90982-32-4

No components need to be disclosed according to the applicable regulations.

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

Section 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.

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

In case of skin contact : Wash off with soap and plenty of water. Consult a physician.

In case of eye contact : Flush eyes with water as a precaution.

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

4.3 Indication of any immediate medical attention and special treatment needed: No data available

Section 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 (NO_x), Sulphur oxides, Hydrogen chloride gas.

5.3 Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures : Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions: Do not let product enter drains.

- 6.3 Methods and materials for containment and cleaning up:** Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
- 6.4 Reference to other sections:** For disposal see section 13.

Section 7: Handling and storage

- 7.1 Precautions for safe handling :** Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.
- 7.2 Conditions for safe storage, including any incompatibilities :** Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Storage class (TRGS 510): Combustible Solids
- 7.3 Specific end use(s):** Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

Section 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection: Safety glasses with side-shields conforming to EN166 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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

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: For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle r (US) or type ABEK- P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Do not let product enter drains.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- | | |
|---------------------------------|--|
| a) Appearance | Form: crystalline
Colour: colourless. |
| b) Odour | No data available |
| c) Odour Threshold | No data available |
| d) pH | No data available |
| e) Melting point/freezing point | 181 °C |

f) Boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	No data available
n) Water solubility	0.009 g/l at 25 °C
o) Partition coefficient: n- octanol/water	log Pow: 0.11
p) Decomposition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

9.2 Other safety information:

Bulk density	:	1,510 kg/m³
Dissociation constant	:	4.2

Section 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: Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides, Hydrogen chloride gas
Other decomposition products - No data available
In the event of fire: see section 5.

Section 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral	:	Rat - 4,102 mg/kg (Chlorimuron-ethyl)
LC50 Inhalation	:	Rat - 4 h - > 5 mg/l (Chlorimuron-ethyl)
LD50 Dermal - Rabbit	:	> 2,000 mg/kg (Chlorimuron-ethyl)

Skin corrosion/irritation

Skin - Rabbit (Chlorimuronethyl)

Result: No skin irritation

Serious eye damage/eye irritation Eyes - Rabbit(Chlorimuron-ethyl) Result: No eye irritation

Respiratory or skin sensitisation-

Guinea pig(Chlorimuron-ethyl)

Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

No data available(Chlorimuron-ethyl)

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.

Reproductive toxicity : No data available (Chlorimuron-ethyl)

Specific target organ toxicity - single exposure : No data available (Chlorimuron-ethyl)

Specific target organ toxicity - repeated exposure : No data available.

Aspiration hazard No data available(Chlorimuron-ethyl)

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(Chlorimuron-ethyl).

Section 12: Ecological information

12.1 Toxicity

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - > 1,000 mg/l - 96h(Chlorimuron-ethyl)

Toxicity to daphnia and other aquatic invertebrates

LC50 - Daphnia magna (Water flea) - 1,000 mg/l - 48 h(Chlorimuron-ethyl)

12.2 Persistence and degradability :No data available

12.3 Bioaccumulative potential :No data available

12.4 Mobility in soil :No data available(Chlorimuron-ethyl)

12.5 Results of PBT and vPvB assessment :PBT/vPvB assessment not available as chemical safety

12.6 Other adverse affects :No data available

Section 13: Disposal considerations

13.1 Waste treatment methods

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chem. scrubber.

Contaminated packaging: Dispose of as unused product.

Section 14: Transport information

14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

14.2 UN proper shipping name

ADR/RID : Not dangerous goods

IMDG : Not dangerous goods

IATA : Not dangerous goods

14.3 Transport hazard class (es) :

ADR/RID: -

IMDG: -

IATA: -

14.4 Packaging group

ADR/RID: -

IMDG: -

IATA: -

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user : No data available

Section 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment : For this product a chemical safety assessment was not carried out

Section 16 Other information: The information provided in this MSDS is of general nature not specific for a particular purpose or situation, and believed to be correct and faithful. Bharat Rasayan Limited does not make any warranty or guarantee of any kind regarding fitness or completeness of information. Bharat Rasayan Limited disclaims any liability to the result(s) obtained or arising out of any use of the product or reliance on data/information contained in this MSDS.