

	GSP Crop Science Ltd	
	SAFETY DATA SHEET	
	THIOCYCLAM HYDROGEN OXALATE	

Version: 01	Revision Date: 31/05/2025	This version replaces all previous versions.
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SECTION 1: Identification of the substance or mixture and of the supplier		
1.1 Product identifier		
Product	:	Thiocyclam hydrogen oxalate
	:	Pure Substance
1.2 Other means of identification		
CAS No.	:	31895-22-4
1.3 Recommended use of the chemical and restrictions on use		
Identified uses	:	Laboratory chemicals, Manufacture of substances
Use advised against	:	Used to control insects in various crops
1.4 Supplier's details		
Name	:	GSP Crop Science Limited
Address	:	404, Lalita Complex, Rasala Road, Mithakhali Six Road, Navrangpura, Ahmedabad- 380009, Gujarat, India.
Phone number	:	+91-79 26466580
Email address	:	info@gspcrop.in
1.5 Emergency phone number		
	:	+91 79 22900451 +91 79 61915111 +91 79 61915151 Timing: IST 9:30 to 17:30 hrs.
SECTION 2: Hazards identification		
2.1 GHS classification of the substance/mixture		
Hazard Category	:	Classification according to Regulation (EC) No 1272/2008 Acute toxicity Oral (Category 3) H301, Acute toxicity Dermal (Category 3) H311, 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		
Hazard Pictograms	:	
Signal Word	:	Danger
Hazard Statements	:	H301 Toxic if swallowed H311 Toxic in contact with skin H410 Very toxic to aquatic life with long lasting effects
Supplement Hazard statements	:	None
Precautionary Statements	:	P264 - Wash face, hands and any exposed skin thoroughly after handling P273 - Avoid release to the environment P391 - Collect spillage
Prevention	:	P280 - Wear protective gloves and protective clothing P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor
Response	:	No information available



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Storage & Disposal	:	Disposal must be made according to official regulations		
2.3 Other hazards which do not result in classification or are not covered by the GHS.				
	:	This substance/mixture contains no components considered to be persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.		
SECTION 3 : Composition/information on ingredients				
3.1 Substance/Mixture				
Synonyms	:	Thiocyclam hydrogen oxalate		
Formula	:	C ₅ H ₁₁ NS ₃ · C ₂ H ₂ O ₄		
Molecular weight	:	271.38 g/mol		
CAS-No.	:	31895-22-4		
EC-No.	:	250-859-2		
Index-No.	:	607-170-00-0		
3.2 Hazardous components				
Chemical name/ Common Name	Content % (w/w)	CAS Number	Classification	Hazard statements
Thiocyclam hydrogen oxalate	86.00 % (Min.)	31895-22- 4	Acute Tox. 3; Aquatic Acute 1; Aquatic Chronic 1; H301, H311, H400, H410 M-Factor - Aquatic Acute:10	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	:	Show this material safety data sheet to the doctor in attendance.		
If inhaled	:	If breathed in, move person into fresh air.		
In case of skin contact	:	Take off immediately all contaminated clothing. Wash off with soap and plenty of water. Consult a physician		
In case of eye contact	:	Flush eyes with water as a precaution. Remove contact lenses.		
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				
Symptoms	:	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				
Treatment	:	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 Special		
5.2 Specific hazards arising from the chemical				
Specific hazards during firefighting	:	Carbon oxides, Nitrogen oxides (NO _x), Sulfur oxides Carbon oxides, Nitrogen oxides (NO _x), Sulfur oxides		
5.3 Special protective actions for fire-fighters				

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Advice for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary. Use personal protection equipment.
Further information	:	No data available
SECTION 6: Accidental release measures		
6.1 Personal precautions, protective equipment and emergency procedures		
Personal precautions	:	Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.
6.2 Environmental precautions		
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 material for containment and cleaning up		
Handling and storage	:	For Handling and storage see section 7.0
Methods for cleaning up	:	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
SECTION 7: Handling and storage		
7.1 Precautions for safe handling		
Advice on 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.		
Requirements for storage areas and containers	:	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Storage class (TRGS 510): Combustible Solids, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects
SECTION 8: Exposure controls/personal protection		
8.1 Control parameters		
Occupational Exposure limit values	:	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies
Biological limit values	:	No data available
8.2 Appropriate engineering controls		
Engineering measures	:	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
8.3 Individual protection measures		
Eye 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).
Hand/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



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		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	:	Where risk assessment shows air-purifying respirators are appropriate use (EN 143) respirator cartridges as a backup to engineering controls. If full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

SECTION 9: Physical and chemical properties

i. Appearance (physical state, color, etc)	:	Beige crystalline
ii. Odor	:	Odourless
lii. Odor threshold	:	No data available
iv. pH	:	No data available
v. Melting point/freezing point	:	132°C
vi. Initial boiling point and boiling range	:	No data available
vii. Flash point	:	> 130.00 °C
viii. Evaporation rate	:	No data available
ix. Flammability (solid, gas)	:	No data available
x. Upper/lower flammability or explosive limits	:	No data available
xi. Vapor pressure	:	6.2×10^{-7} Pa at 25°C
xii. Vapor density	:	No data available
xiii. Relative density	:	No data available
xiv. Solubility(ies)	:	Soluble in water
xv. Partition coefficient: n-octanol/water	:	log Pow: 0.0706 in n-octanol/water
xvi. Auto-ignition temperature	:	No data available
xvii. Decomposition temperature	:	No data available
xviii. Viscosity	:	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
xix. Others	:	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity	:	Forms explosive mixtures with air on intense heating.
10.2 Chemical stability	:	Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions	:	No data available
10.4 Conditions to avoid	:	Strong heating
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), Sulfur oxides.



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Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulfur oxides.
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Acute Toxicity

Exposure	Unit	Value	Hazard Category
Oral	LD ₅₀ (Rat) mg/kg body weight	195 mg/kg	
Dermal	LD ₅₀ (Rabbit) mg/kg body weight	Rat - > 1,000 mg/kg	
Inhalation	LC ₅₀ (Rat) mg/kg body weight	Rat - 4 h - > 4500 mg/m ³	
Skin corrosion/irritation	No data available		
Serious eye damage irritation	No data available		
Skin sensitization	No data available		

11.2 Germ cell mutagenicity : No data available

11.3 Carcinogenicity : No data available

11.4 Reproductive toxicity : No data available

SECTION 12: Ecological information

12.1 Aquatic Toxicity

Organism	Species	Unit	Value	Hazard Category
Toxicity to fish	Oncorhynchus mykiss (rainbow trout)	LC ₅₀ (96 hrs) mg/L	> 0.04 mg/l	
Toxicity to aquatic invertebrates	Daphnia magna (Water flea) -	EC ₅₀ (48 h) mg/L	2.01 mg/l	
Toxicity to aquatic plants	Scenedemus	EC ₅₀ (72 hrs) mg/L	3.3 mg/l	

12.2 Persistence and degradability

Biodegradability Result : Not readily biodegradable

12.3 Bioaccumulative potential

Bio accumulation Tilapia sparrmanii : No data available

12.4 Mobility in soil

: No data available

12.5 Other adverse effects

: No data available

SECTION 13: Disposal considerations

Waste treatment methods : Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations.

Contaminated packaging : Do not reuse empty containers.

SECTION 14: Transport information

14.1 UN Number

ADR/RID: UN2588 IMDG: UN2588 IATA: UN2588

14.2 UN Proper Shipping Name

ADR/RID: ADR/RID: ADR/RID:

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PESTICIDE, SOLID, TOXIC, N.O.S. (THIOCYCLAM HYDROGENOXALATE)	PESTICIDE, SOLID, TOXIC, N.O.S. (THIOCYCLAM HYDROGENOXALATE)	PESTICIDE, SOLID, TOXIC, N.O.S. (THIOCYCLAM HYDROGENOXALATE)
14.3 Transport Hazard class(es)		
ADR/RID: 6.1	IMDG: 6.1	IATA: 6.1
14.4 Packing group, if applicable		
ADR/RID: III	IMDG: III	IATA: III
14.5 Environmental hazards		
ADR/RID: Yes	IMDG Marine pollutant: Yes	IATA: Yes
14.6 Special precautions for user		
Tunnel restriction code : (E)		
14.7 Transport in bulk according to IMO instruments		
SECTION 15: Regulatory information		
Safety, health and environmental regulations specific for the product in question.		
Full text of H-Statements	:	H301 Toxic if swallowed. H311 Toxic in contact with skin. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.
REACH - Candidate List of Substances of Very High Concern for Authorisation	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	No information available
Regulation (EC) No 850/2004 on persistent organic pollutants	:	No information available
SECTION 16: OTHER INFORMATION		
16.1 Information on revision		
16.2 Abbreviations and acronyms		
GHS	:	Globally Harmonized System
CAS	:	Chemical Abstracts Service
LC ₅₀	:	Lethal Concentration 50%
LD ₅₀	:	Lethal Dose 50%
EC ₅₀	:	Effective Concentration 50%
PBT	:	Persistent, Bioaccumulative and Toxic substance
vPvB	:	Very Persistent and Very Bioaccumulative
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
MARPOL	:	International Convention for the Prevention of Pollution from Ships
STOT	:	Specific target organ toxicity
16.3 References		



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- 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>
- Reference MSDS sigma Aldrich; LGC Standards
- 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>
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>
- The Pesticide Manual, British Crop Production Council
- Unpublished reports – GSP Crop Science Limited, India.

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product.