

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Reference number: 3994F Issue date: 11/2/2023 Supersedes version of: 11/2/2023 Version: 1.0

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

1.1. Product identifier	
Product form Trade name EC Index-No. EC-No. CAS-No. Product code Formula Chemical structure	: Substance : GUANIDINE THIOCYANATE MOLECULAR BIOLOGY : 615-030-00-5 : 209-812-1 : 593-84-0 : 3994F : C2H6N4S : $\overset{\circ}{\text{NH}_2}_{\text{H}_2} \overset{\circ}{\text{IS}} = -C \equiv \bar{\text{N}}$
Synonyms	: Guanidinium rhodanide, Guanidinium thiocyanate
1.2. Relevant identified uses of the substa	nce or mixture and uses advised against
1.2.1. Relevant identified uses Use of the substance/mixture Use of the substance/mixture	 Industrial. For professional use only Laboratory chemicals Manufacture of substances
1.2.2. Uses advised against	
No additional information available	
1.3. Details of the supplier of the safety da	ta sheet
LOBA CHEMIE PVT.LTD. 107 Wode House Road, Jehangir Villa, Colaba 400005 Mumbai INDIA T +91 22 6663 6663 - F +91 22 6663 6699 info@lobachemie.com - www.lobachemie.com	
1.4. Emergency telephone number	
Emergency number	: + 91 22 6663 6663 (9:00am - 6:00 pm)
SECTION 2: Hazards identification	
2.1. Classification of the substance or mix	ture
Classification according to Regulation (EC) No.	1272/2008 [CLP]
Acute toxicity (oral), Category 4	H302 H312

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Acute toxicity (dermal), Category 4	H312
Acute toxicity (inhal.), Category 4	H332
Skin corrosion/irritation, Category 1, Sub-Category 1B	H314
Hazardous to the aquatic environment – Chronic Hazard,	H412
Category 3	

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Harmful in contact with skin. Harmful if inhaled. Harmful if swallowed. Causes severe skin burns and eye damage. Harmful to aquatic life with long lasting effects.

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2.2. Label elements	
Labelling according to Regulation (EC) N	lo. 1272/2008 [CLP]
Hazard pictograms (CLP)	
	GHS05 GHS07
Signal word (CLP)	: Danger
Hazard statements (CLP)	: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled.
	H314 - Causes severe skin burns and eye damage.
	H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements (CLP)	 P273 - Avoid release to the environment. P280 - Wear protective clothing, eye protection, face protection, protective gloves. P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell. P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water . P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER or doctor.
Nordic countries regulation	
Denmark	
MAL code	: 00-3 (Executive Order No. 301 from 1993)

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients		
3.1. Substances		
Name:CAS-No.:EC-No.:	Mono-constituent GUANIDINE THIOCYANATE 593-84-0 209-812-1 615-030-00-5	
Name	Product identifier	%
GUANIDINE THIOCYANATE	CAS-No.: 593-84-0 EC-No.: 209-812-1 EC Index-No.: 615-030-00-5	100

3.2. Mixtures

Not applicable

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	: Immediately call a POISON CENTER/doctor. Wash with plenty of water/ Wash contaminated clothing before reuse. Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician immediately.

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	 Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Call a physician immediately. Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Do not induce vomiting. Call a physician immediately.
4.2. Most important symptoms and effects, I	both acute and delayed
Symptoms/effects after inhalation	 Causes severe skin burns and eye damage. Harmful if inhaled. Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin. Burns.
Symptoms/effects after eye contact Symptoms/effects after ingestion	 Serious damage to eyes. Swallowing a small quantity of this material will result in serious health hazard. Burns.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures		
5.1. Extinguishing media		
Suitable extinguishing media Unsuitable extinguishing media	Water spray. Foam. Dry powder. Carbon dioxide.Do not use a heavy water stream.	
5.2. Special hazards arising from the substance or mixture		
Hazardous decomposition products in case of fire	: Toxic fumes may be released.	
5.3. Advice for firefighters		
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.	

SECTION 6: Accidental release measures	
6.1. Personal precautions, protectiv	e equipment and emergency procedures
6.1.1. For non-emergency personnel	
Emergency procedures	: Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin, eyes and clothing. Do not breathe dust/fume/gas/mist/vapours/spray.
6.1.2. For emergency responders	
Protective equipment	: Do not attempt to take action without suitable protective equipment. Use personal protective equipment as required. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Ventilate area.
6.2 Environmental processions	

Avoid release to the environment. Harmful to aquatic life with long lasting effects.

6.3. Methods and material for containment and cleaning up		
: Mechanically recover the product. Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.		
: Dispose of materials or solid residues at an authorized site.		

For further information refer to section 13.

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SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling Hygiene measures	 Do not breathe vapours, fume, gas, spray, dust. Provide good ventilation in process area to prevent formation of vapour. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Always wash hands after handling the product.
7.2. Conditions for safe storage, including	g any incompatibilities
Technical measures Storage conditions	 Comply with applicable regulations. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls: Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection: Chemical goggles or safety glasses

8.2.2.2. Skin protection

Skin and body protection: Wear a mask

Hand protection: Protective gloves

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8.2.2.3. Respiratory protection

Respiratory protection:

Wear appropriate mask. [In case of inadequate ventilation] wear respiratory protection.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: White.
Appearance	: Crystalline powder.
Molecular mass	: 118.16 g/mol
Odour	: Odourless.
Odour threshold	: Not available
Melting point	: 117 – 120 °C
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Non flammable.
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
рН	: 4.8 – 6 at 20°C
pH solution concentration	: 20 %
Viscosity, kinematic	: Not applicable
Solubility	: Water: Soluble in water
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: 1.29 g/cm³ at 20°C
Relative density	: Not available
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapours.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Highly reactive material. Contact with acids liberates very toxic gas.

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10.4. Conditions to avoid
Direct sunlight. Extremely high or low temperatures.
10.5. Incompatible materials
No additional information available
10.6. Hazardous decomposition products
Thermal decomposition generates : Corrosive vapours.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Harmful in contact with skin.
Acute toxicity (inhalation)	: Harmful if inhaled.
Skin corrosion/irritation	: Causes severe skin burns. pH: 4.8 – 6 at 20°C
Serious eye damage/irritation	: Assumed to cause serious eye damage pH: 4.8 – 6 at 20°C
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
GUANIDINE THIOCYANATE MOLECULAR BIOLOGY (593-84-0)	

Viscosity, kinematic

Not applicable

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential adverse human health effects and : Harmful if swallowed,Harmful in contact with skin,Harmful if inhaled. symptoms

SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - general: Harmful to aquatic life with long lasting effects.Ecology - water: Harmful to aquatic life with long lasting effects.Hazardous to the aquatic environment, short-term: Not classified(acute): Harmful to aquatic life with long lasting effects.Hazardous to the aquatic environment, long-term: Harmful to aquatic life with long lasting effects.(chronic): Harmful to aquatic life with long lasting effects.	
12.2. Persistence and degradability	
GUANIDINE THIOCYANATE MOLECULAR BIOLOGY (593-84-0)	
Persistence and degradability May cause long-term adverse effects in the environment.	
12.3. Bioaccumulative potential	
No additional information available	

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12.4. Mobility in soil
No additional information available
12.5. Results of PBT and vPvB assessment
No additional information available
12.6. Endocrine disrupting properties
No additional information available
12.7. Other adverse effects
No additional information available

SECTION 13: Disposal considerations	
13.1. Waste treatment methods	
Waste treatment methods Product/Packaging disposal recommendations	 Dispose of contents/container in accordance with licensed collector's sorting instructions. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
SECTION 14: Transport information	
In accordance with ADR / IMDG / IATA / ADN / RID	
14.1. UN number or ID number	
UN-No. (ADR) UN-No. (IMDG) UN-No. (IATA) UN-No. (ADN) UN-No. (RID)	 : UN 1759
14.2. UN proper shipping name	
Proper Shipping Name (ADR) Proper Shipping Name (IMDG) Proper Shipping Name (IATA) Proper Shipping Name (ADN) Proper Shipping Name (RID) Transport document description (ADR) Transport document description (IMDG) Transport document description (IATA) Transport document description (ADN) Transport document description (RID)	 CORROSIVE SOLID, N.O.S. UN 1759 CORROSIVE SOLID, N.O.S. (GUANIDINE THIOCYANATE), 8, III, (E) UN 1759 CORROSIVE SOLID, N.O.S., 8, III
14.3. Transport hazard class(es)	
ADR Transport hazard class(es) (ADR) Danger labels (ADR)	

IMDG

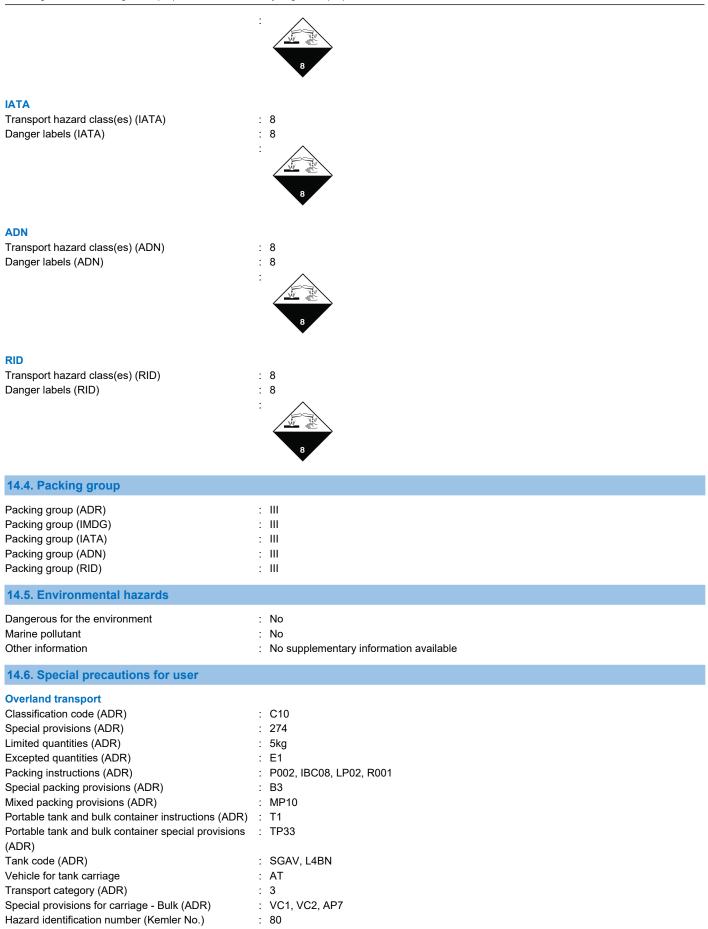
Transport hazard class(es) (IMDG)	
Danger labels (IMDG)	

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Orange plates

Orange plates	80 1759
Tunnel restriction code (ADR)	: E
EAC code	: 2X
Transport by sea	
Special provisions (IMDG)	: 223, 274
Limited quantities (IMDG)	: 5 kg
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P002, LP02
IBC packing instructions (IMDG)	: IBC08
IBC special provisions (IMDG)	: B3
Tank instructions (IMDG)	: T1
Tank special provisions (IMDG)	: TP33
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-B
Stowage category (IMDG)	: A
Properties and observations (IMDG)	: Causes burns to skin, eyes and mucous membranes.
MFAG-No	: 154
Air transport	
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y845
PCA limited quantity max net quantity (IATA)	: 5kg
PCA packing instructions (IATA)	: 860
PCA max net quantity (IATA)	: 25kg
CAO packing instructions (IATA)	: 864
CAO max net quantity (IATA)	: 100kg
Special provisions (IATA)	: A3, A803
ERG code (IATA)	: 8L
Inland waterway transport	
Classification code (ADN)	: C10
Special provisions (ADN)	: 274
Limited quantities (ADN)	: 5 kg
Excepted quantities (ADN)	: E1
Equipment required (ADN)	: PP, EP
Number of blue cones/lights (ADN)	: 0
Rail transport	
Classification code (RID)	: C10
Special provisions (RID)	: 274
Limited quantities (RID)	: 5kg
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P002, IBC08, LP02, R001
Special packing provisions (RID)	: B3
Mixed packing provisions (RID)	: MP10
Portable tank and bulk container instructions (RID)	: T1
Portable tank and bulk container special provisions	: TP33
(RID) Tank order for DID tanks (DID)	
Tank codes for RID tanks (RID)	: SGAV, L4BN
Transport category (RID)	
Special provisions for carriage – Bulk (RID)	: VC1, VC2, AP7 : CE11
Colis express (express parcels) (RID) Hazard identification number (RID)	: CETT : 80

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Germany

Water hazard class (WGK) Hazardous Incident Ordinance (12. BImSchV)	 WGK 2, Significantly hazardous to water (Classification according to AwSV; ID No. 3666). Is not subject of the Hazardous Incident Ordinance (12. BImSchV)
Netherlands	
SZW-lijst van kankerverwekkende stoffen	: The substance is not listed
SZW-lijst van mutagene stoffen	: The substance is not listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	: The substance is not listed
SZW-lijst van reprotoxische stoffen –	: The substance is not listed
Vruchtbaarheid	
SZW-lijst van reprotoxische stoffen – Ontwikkeling	: The substance is not listed
Denmark	
MAL code	: 00-3 (Executive Order No. 301 from 1993)
Danish National Regulations	: Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor

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Abbreviations and acr	Abbreviations and acronyms:	
BLV	Biological limit value	
BOD	Biochemical oxygen demand (BOD)	
COD	Chemical oxygen demand (COD)	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC-No.	European Community number	
EC50	Median effective concentration	
EN	European Standard	
IARC	International Agency for Research on Cancer	
ΙΑΤΑ	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OECD	Organisation for Economic Co-operation and Development	
OEL	Occupational Exposure Limit	
РВТ	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
STP	Sewage treatment plant	
ThOD	Theoretical oxygen demand (ThOD)	
TLM	Median Tolerance Limit	
VOC	Volatile Organic Compounds	
CAS-No.	Chemical Abstract Service number	
N.O.S.	Not Otherwise Specified	
vPvB	Very Persistent and Very Bioaccumulative	
ED	Endocrine disrupting properties	

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
H302	Harmful if swallowed.
H312	Harmful in contact with skin.

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Full text of H- and EUH-statements:	
H314	Causes severe skin burns and eye damage.
H332	Harmful if inhaled.
H412	Harmful to aquatic life with long lasting effects.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.