

MATERIAL SAFETY DATA SHEET

The Power to Question

1 Identification of substance:

Product Name: Formaldoxime trimer hydrochloride
Catalog Number: sc-250023
Supplier: Santa Cruz Biotechnology, Inc.
 2145 Delaware Avenue
 Santa Cruz, California 95060
 800.457.3801 or 831.457.3800

Emergency: ChemWatch
 Within the US & Canada: 877-715-9305
 Outside the US & Canada: +800 2436 2255
 (1-800-CHEMCALL) or call +613 9573 3112

2 Hazards identification

Classification of the substance or mixture



GHS06 Skull and crossbones

H300 Fatal if swallowed.
 H310 Fatal in contact with skin.



GHS07

H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



T; Toxic

R24/25: Toxic in contact with skin and if swallowed.



Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.

Label elements

Labelling according to EU guidelines:

Code letter and hazard designation of product:

T Toxic

Risk phrases:

24/25 Toxic in contact with skin and if swallowed.
 36/37/38 Irritating to eyes, respiratory system and skin.

Safety phrases:

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 36/37 Wear suitable protective clothing and gloves.
 45 In case of accident or if you feel unwell, seek medical advice immediately.

Hazard description:

WHMIS classification



Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

HEALTH	3
FIRE	1
REACTIVITY	1

Health (acute effects) = 3
 Flammability = 1
 Reactivity = 1

Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Substances
(CAS#) Description:
Formaldoxime trimer hydrochloride (CAS# 62479-72-5)
Identification number(s):
EINECS Number: 222-440-4

4 First aid measures

Description of first aid measures
After inhalation
Supply fresh air. If required, provide artificial respiration. Keep patient warm.
Seek immediate medical advice.
After skin contact
Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.
After eye contact
Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing Seek immediate medical advice.

5 Firefighting measures

Extinguishing media
Suitable extinguishing agents
Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Special hazards arising from the substance or mixture
In case of fire, the following can be released:
Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)
Hydrogen chloride (HCl)
Advice for firefighters
Protective equipment:
Wear self-contained respirator.
Wear fully protective impervious suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Environmental precautions:
Do not allow material to be released to the environment without proper governmental permits.
Methods and material for containment and cleaning up: Ensure adequate ventilation.
Reference to other sections
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

Handling
Precautions for safe handling
Keep container tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation at the workplace.
Information about protection against explosions and fires: Keep ignition sources away.
Conditions for safe storage, including any incompatibilities
Storage
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: Store away from oxidizing agents.
Further information about storage conditions:
Keep container tightly sealed. Store at room temperature.
Store in cool, dry conditions in well sealed containers.

8 Exposure controls/personal protection

Additional information about design of technical systems:
Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters

Components with limit values that require monitoring at the workplace:

Additional information: No data

Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Breathing equipment: Use suitable respirator when high concentrations are present.

Protection of hands:

Impervious gloves

Check protective gloves prior to each use for their proper condition.

Material of gloves

The selection of suitable gloves not only depends on the material, but also on quality.

Quality will vary from manufacturer to manufacturer.

Eye protection: Safety glasses

Body protection: Protective work clothing.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Crystalline powder
Formula:	C ₃ H ₉ N ₃ O ₃ • xHCl
Weight:	135.12 (free base basis)

pH-value: Not applicable.

Change in condition

Melting point/Melting range:	128°C (262 °F) (decomposes)
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined

Flash point: Not applicable

Flammability (solid, gaseous) Not determined.

Ignition temperature: Not determined

Decomposition temperature: Not determined

Auto igniting: Not determined.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined
Upper:	Not determined

Vapor pressure: Not applicable.

Density: Not determined

Relative density Not determined.

Vapour density Not applicable.

Evaporation rate Not applicable.

Segregation coefficient (n-octanol/water): Not determined.

Viscosity:

dynamic: Not applicable.

kinematic: Not applicable.

Other information No further relevant information available.

10 Stability and reactivity

Reactivity

Chemical stability

Thermal decomposition / conditions to be avoided:

Decomposition will not occur if used and stored according to specifications.

Possibility of hazardous reactions No dangerous reactions known

Incompatible materials:

Water/moisture

Oxidizing agents

Hazardous decomposition products:

Carbon monoxide and carbon dioxide

Nitrogen oxides

Hydrogen chloride (HCl)

11 Toxicological information

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

Oral	LD50	30 mg/kg (rat) (RTECS TQ0300000 for Formaldoxime hydrochloride)
Dermal	LD50	100 mg/kg (guinea pig) (RTECS TQ0300000 for Formaldoxime hydrochloride)

Primary irritant effect:

on the skin: Irritant to skin and mucous membranes.

on the eye: Irritating effect.

Sensitization: No sensitizing effects known.

Subacute to chronic toxicity:

Other than potential irritation (see above), no information on illness or injury to humans from acute or chronic exposure to this product is available.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Danger through skin absorption.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information

Toxicity

Acquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Behavior in environmental systems:

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Additional ecological information:

General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Do not allow material to be released to the environment without proper governmental permits.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

13 Disposal considerations

Waste treatment methods

Recommendation Consult state, local or national regulations to ensure proper disposal.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

14 Transport information

DOT regulations:



Hazard class:

6.1

Identification number:

UN2811

Packing group:

II

Proper shipping name (technical name): TOXIC SOLID, ORGANIC, N.O.S. (Formaldoxime trimer hydrochloride)

Label

6.1

Land transport ADR/RID (cross-border)



ADR/RID class:

6.1 (T2) Toxic substances

Danger code (Kemler):

60

UN-Number:

2811

Packaging group:

II

UN proper shipping name:

2811 TOXIC SOLID, ORGANIC, N.O.S. (Formaldoxime trimer hydrochloride)

Maritime transport IMDG:



IMDG Class: 6.1
UN Number: 2811
Label 6.1
Packaging group: II
EMS Number: F-A, S-A
Marine pollutant: No
Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (Formaldoxime trimer hydrochloride)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 6.1
UN/ID Number: 2811
Label 6.1
Packaging group: II
Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (Formaldoxime trimer hydrochloride)

UN "Model Regulation": UN2811, TOXIC SOLID, ORGANIC, N.O.S., 6.1, II

Special precautions for user Warning: Toxic substances

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

15 Regulatory information

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

Product related hazard informations:

Hazard symbols:

T Toxic

Risk phrases:

24/25 Toxic in contact with skin and if swallowed.

36/37/38 Irritating to eyes, respiratory system and skin.

Safety phrases:

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36/37 Wear suitable protective clothing and gloves.

45 In case of accident or if you feel unwell, seek medical advice immediately.

National regulations

This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted to research and development only.

Some or all of the components of this product are not listed on the Canadian Domestic Substances List (DSL) or the Canadian Non-Domestic Substances List (NDSL).

Information about limitation of use: For use only by technically qualified individuals.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information:

The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.