

SAFETY DATA SHEET

Revision Date 19-Dec-2025 Revision Number 5

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

1. Identification

Product Name 1,3-Cyclohexanebis(methylamine), mixture of cis and trans

Cat No.: AC177480000; AC177480050; AC177481000; AC177485000

CAS No 2579-20-6

Synonyms 1,3-BAC; 1,3-Bis(aminomethyl)cyclohexane

Recommended UseLaboratory chemicals.

Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Fair Lawn, NJ 07410

Tel: (201) 796-7100

Emergency Telephone Number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11 Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99 **CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is considered hazardous according to [US] OSHA (29 CFR 1910.1200, 2024)

Acute oral toxicity
Category 4
Acute dermal toxicity
Category 4
Skin Corrosion/Irritation
Category 1
Serious Eye Damage/Eye Irritation
Category 1
Specific target organ toxicity (single exposure)
Category 3

Target Organs - Respiratory system.

Label Elements

Signal Word

Danger

1,3-Cyclohexanebis(methylamine), mixture of cis and

Hazard Statements

Harmful if swallowed Harmful in contact with skin Causes severe skin burns and eye damage May cause respiratory irritation



Precautionary Statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Wear protective gloves/protective clothing/eye protection/face protection

Do not breathe dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

Response

Immediately call a POISON CENTER or doctor

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing

Take off contaminated clothing and wash before reuse

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Ingestion

Rinse mouth

Do NOT induce vomiting

Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

Hazards classified under paragraph (d)(1)(ii) of 1910.1200

No information available

3. Composition/information on Ingredients

Component	CAS No	Weight %	
1,3-Cyclohexanedimethanamine	2579-20-6	99	

4. First-aid measures

Eye Contact Immediate medical attention is required. Rinse immediately with plenty of water, also under

the eyelids, for at least 15 minutes.

Wash off immediately with soap and plenty of water while removing all contaminated **Skin Contact**

clothes and shoes. Immediate medical attention is required.

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Inhalation Remove from exposure, lie down, Remove to fresh air, If breathing is difficult, give oxygen.

If not breathing, give artificial respiration, Immediate medical attention is required.

Ingestion Call a physician immediately. Clean mouth with water.

Most important symptoms and

effects

Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue

and danger of perforation

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Water spray. Carbon dioxide (CO₂). Dry chemical. Chemical foam.

Unsuitable Extinguishing Media No information available

Flash Point 106 °C / 222.8 °F

Method - No information available

Autoignition Temperature

Explosion Limits

No information available

Upper No data available
Lower No data available
Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO₂).

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

HealthFlammabilityInstabilityPhysical hazards310N/A

6. Accidental release measures

Personal Precautions Ensure adequate ventilation. Use personal protective equipment as required.

Environmental Precautions See Section 12 for additional Ecological Information.

Methods for Containment and Clean Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, **Up** sawdust). Keep in suitable, closed containers for disposal.

7. Handling and Storage

Handling Do not breathe dust. Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on

clothing. Handle product only in closed system or provide appropriate exhaust ventilation.

Storage. Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Corrosives

area. Incompatible Materials. Acids. Strong oxidizing agents. Acid anhydrides. Acid

chlorides.

8. Exposure controls / personal protection

Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure

limitsestablished by the region specific regulatory bodies.

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by

OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard

EN166.

Skin and body protectionWear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard

EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Remarks

Method

Hygiene MeasuresHandle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance

Physical State Liquid
Color Colorless
Odor Odorless

Odor Threshold No information available

<u>Property</u> <u>Values</u>

Melting Point/Range < -70 °C / -94 °F

Softening Point No data available

Boiling Point/Range220 °C / 428 °F@ 760 mmHgFlash Point106 °C / 222.8 °FMethod - No information available

Flash Point 106 °C / 222.8 °F
Flammability (liquid) No data available
Flammability (solid,gas) No information available

Explosion Limits No data available

Autoignition TemperatureNo data availableDecomposition TemperatureNo data availablepHNo information available

Viscosity
No data available
Water Solubility
Soluble

Solubility in other solvents

No information available

Partition Coefficient (n-octanol/water)

Component log Pow 1,3-Cyclohexanedimethanamine 0.783

Vapor Pressure No data available

Density / Specific Gravity 0.940

Bulk Density No data available

Vapor Density 4.90 (Air = 1.0)

Particle characteristics Not applicable (liquid)

Other Information

Molecular Formula C8 H18 N2 Molecular Weight 142.24

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under normal conditions.

Conditions to Avoid Incompatible products.

Incompatible Materials Acids, Strong oxidizing agents, Acid anhydrides, Acid chlorides

Hazardous Decomposition Products Nitrogen oxides (NOx), Carbon monoxide (CO₂), Carbon dioxide (CO₂)

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Information on expected route of exposure

Inhalation Not an expected route of exposure.
Ingestion May be harmful if swallowed.

Eyes Avoid contact with eyes. Corrosive to the eyes and may cause severe damage including

blindness.

Skin Causes burns. Avoid contact with skin. Skin Corrosion/Irritation.

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
1,3-Cyclohexanedimethanamine	LD50 200 - 2000 mg/kg (Rat)	LD50 = 1700 mg/kg (Rabbit)	-

Toxicologically Synergistic

Products

No information available

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization;

RespiratoryNo data availableSkinNo data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity;

The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
1,3-Cyclohexanedimet	2579-20-6	Not listed				
hanamine						

(g) reproductive toxicity; No data available

1,3-Cyclohexanebis(methylamine), mixture of cis and trans

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs No information available.

No data available (i) aspiration hazard;

delayed

Symptoms / effects,both acute and Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes

severe swelling, severe damage to the delicate tissue and danger of perforation.

Other Adverse Effects The toxicological properties have not been fully investigated.

Endocrine Disrupting Properties This product does not contain any known or suspected endocrine disruptors.

12. Ecological information

Ecotoxicity

Do not empty into drains.

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available.

Mobility No information available.

Component	log Pow	
1,3-Cyclohexanedimethanamine	0.783	

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a

hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT

UN3267 **UN-No Hazard Class** 8 **Packing Group** Ш

TDG

UN-No UN3267 **Hazard Class Packing Group** Ш

IATA

UN-No

Proper Shipping Name CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.*

Hazard Class Packing Group Ш

IMDG/IMO

UN3267 **UN-No**

Proper Shipping Name Corrosive liquid, basic, organic, n.o.s.

Hazard Class Packing Group Ш

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15. Regulatory Information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
1,3-Cyclohexanedimethanamine	2579-20-6	Х	ACTIVE	-

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)

Not applicable

TSCA 12(b) - Notices of Export

Not applicable

International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
1,3-Cyclohexanedimethanamine	2579-20-6	Χ	-	219-941-5	Χ	Χ	Χ	Χ	Χ	KE-09173

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and

Not applicable

Health Administration

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know

Regulations

Not applicable

1,3-Cyclohexanebis(methylamine), mixture of cis and trans

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U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland

Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH Not applicable

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	J	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
1,3-Cyclohexanedimethanamine	2579-20-6	-	-	-

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

	Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
I	1,3-Cyclohexanedimethanami ne	2579-20-6	Listed	Not applicable	Not applicable	Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)? Not applicable

Other International Regulations

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
1,3-Cyclohexanedimethanami ne	2579-20-6	Not applicable	Not applicable	Not applicable	Not applicable

16. Other Information

Prepared By Product stewardship (Regulatory Affairs)

Thermo Fisher Scientific

email - begel.sdsdesk@thermofisher.com

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Revision Summary Updated to the U.S. Department of Labor's Occupational Safety and Health Administration

(OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200,

2024), May 20, 2024, effective July 19, 2024.

Disclaimer

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS