

Restech+ Part B, Amine Hardener

SECTION 1. IDENTIFICATION

Product Identifier	Restech+ Part B, Amine Hardener
Other Means of Identification	Part B
Product Family	Amine Hardener
Recommended Use	Industrial Use Only.
Restrictions on Use	None known.
Manufacturer / Supplier	Fabtech Systems LLC, PO Box 2248, Everett WA 98213 1-800-322-8324 info@fabtechsystems.com
Emergency Phone No.	INFOTRAC 24hr 800-535-5053, International 1-352-323-3500
SDS No.	0159
Date of Preparation	January 1, 2023

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) - Category 4; Skin corrosion/irritation - Category 1B; Serious eye damage/eye irritation - Category 2A; Skin sensitization - Category 1B; Aquatic hazard (Chronic) - Category 3

GHS Label Elements



Danger

Hazard Statement(s):

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H332	Harmful if inhaled.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statement(s):

Prevention:

P264	Wash hands and skin thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.

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P363 Wash contaminated clothing before reuse.
Disposal:
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.
Other Hazards
Warning. May be a health hazard in confined spaces.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers
Cyclohexane, 1,3-bis(aminomethyl)-	2579-20-6	40-70	
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with m-phenylenebis(methylamine)	CBI*	20-60	
Proprietary Component	CBI*	2-10	
4-Nonylphenol, branched (mixed isomers)	84852-15-3	2-10	

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Take precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment). Remove source of exposure or move to fresh air. If experiencing respiratory symptoms (e.g. coughing, shortness of breath, wheezing), call a Poison Centre or doctor. Immediately call a Poison Centre or doctor.

Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. If skin irritation occurs get medical advice/attention.

Eye Contact

Avoid direct contact. Wear chemical protective gloves if necessary. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice/attention.

Ingestion

Rinse mouth with water. Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Get medical advice/attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

If on skin: may cause moderate to severe irritation. If in eyes: may cause moderate to severe irritation. May be harmful if swallowed may cause sensitization by skin contact.

Immediate Medical Attention and Special Treatment

Target Organs

Lungs, respiratory system, skin.

Special Instructions

Not applicable.

Medical Conditions Aggravated by Exposure

None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

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Use water to keep non-leaking, fire-exposed containers cool.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Chemical

Heating increases the release of toxic vapour.

In a fire, the following hazardous materials may be generated: very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides.

Special Protective Equipment and Precautions for Fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA).

Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Increase ventilation to area or move leaking container to a well-ventilated and secure area.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

Methods and Materials for Containment and Cleaning Up

Small spills or leaks: stop or reduce leak if safe to do so. Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Large spills or leaks: dike spilled product to prevent runoff. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Do not breathe in this product. Prevent all skin contact. Do not get in eyes. Only use where there is adequate ventilation. Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system). If product is transferred to another container, ensure new container is suitable for the product. Wear personal protective equipment to avoid direct contact with this chemical. Do NOT eat, drink or store food in work areas. Remove contaminated clothing and protective equipment before entering eating areas or leaving work area. Wash hands thoroughly after handling this material.

Conditions for Safe Storage

Store in an area that is: ventilated. Store in corrosive resistant container with a resistant inner liner. Empty containers may contain hazardous residue. Store separately. Keep closed. Follow all precautions given on this safety data sheet. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Appropriate Engineering Controls

In a confined space: general ventilation is usually adequate. For large scale use of this product: do not allow product to accumulate in the air in work or storage areas, or in confined spaces. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Butyl rubber, neoprene rubber, nitrile rubber.

Respiratory Protection

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Wear a NIOSH approved air-purifying respirator with an organic vapour cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Colourless liquid.
Odour	Ammonia-like
pH	> 10
Flash Point	122 °C (252 °F)
Relative Density (water = 1)	0.92 (estimated)
Solubility	Soluble (more than 10-50%) in water
Other Information	
Physical State	Liquid

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources.

Incompatible Materials

Strong acids (e.g. hydrochloric acid), strong oxidizing agents (e.g. perchloric acid).

Hazardous Decomposition Products

Ammonia.

SECTION 11. TOXICOLOGICAL INFORMATION

Severely irritating to the respiratory system harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage. May cause burns to mouth, throat and stomach. Corrosive to the skin. Causes burns. Corrosive to the eyes. Causes burns.

Likely Routes of Exposure

Inhalation; skin contact; eye contact.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Cyclohexane, 1, 3-bis(aminomethyl)-		~ 700 mg/kg (male rat)	~ 1700 mg/kg (rabbit)
4-Nonylphenol, branched (mixed isomers)		~ 1412 mg/kg (male rat)	~ 2031 mg/kg (rabbit)

Skin Corrosion/Irritation

Animal tests show moderate or severe irritation.

Serious Eye Damage/Irritation

Causes serious eye irritation based on skin irritation information.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

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Symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest.

Skin Absorption

Corrosive to skin. Causes burns. May cause sensitization by skin contact.

Ingestion

Harmful if swallowed. May cause burns to mouth throat and stomach.

Aspiration Hazard

Can cause lung damage if aspirated based on human experience.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Respiratory and/or Skin Sensitization

In sensitized people, exposure to a very small amount of product can cause symptoms including wheezing, difficult breathing, sneezing and runny or blocked nose. Can cause death. Symptoms can develop immediately following exposure or hours later. Repeated exposure will make the reaction worse.

Carcinogenicity

Not known to cause cancer.

Key to Abbreviations

A5 = Not suspected as a human carcinogen.

Reproductive Toxicity

Development of Offspring

Not known to harm the unborn child.

Sexual Function and Fertility

Not known to cause effects on sexual function or fertility.

Effects on or via Lactation

Not known to cause effects on or via lactation.

Germ Cell Mutagenicity

Not known to be a mutagen.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Not readily biodegradable. This product shows a low bioaccumulation potential.

Toxicity

Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Cyclohexane, 1, 3-bis(aminomethyl)-	~ 130 mg/L (96-hour)	~ 33.1 mg/L (Daphnia magna (water flea); 48-hour)		~ 56.7 mg/L (Selenastrum capricornutum (algae))
4-Nonylphenol, branched (mixed isomers)		~ .14 (Daphnia magna (water flea); 48-hour)		

Persistence and Degradability

Does not degrade rapidly based on quantitative tests.

Bioaccumulative Potential

This product and its degradation products not expected to bioaccumulate based on the n-octanol/water partition coefficient (Log Kow).

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SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

This product and its container must be disposed of as hazardous waste. Do NOT dump into any sewers, on the ground or into any body of water. Dispose of or recycle empty containers through an approved waste management facility.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
US DOT	UN 2735	Amines, Liquid Corrosive, N.O.S. (Alkyl Polyamine)	8	II
Canadian TDG	UN 2735	Amines, Liquid Corrosive, N.O.S. (Alkyl Polyamine)	8	II
IMO (Marine)	UN 2735	Amines, Liquid Corrosive, N.O.S. (Alkyl Polyamine)	8	II

Special Precautions for User Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

WHMIS Classification



Class D2A; D2B Class E

D2A - Very Toxic (Chronic toxicity); D2B - Toxic (Skin irritant; Eye irritant; Skin sensitization); E - Corrosive

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by the Controlled Products Regulations.

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL or are not required to be listed.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

SECTION 16. OTHER INFORMATION

NFPA Rating Health - 3 Flammability - 1 Instability - 0