

EXCELSIOR EN-610 B

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations
Revision Date: 07/20/2023

Version: 1.2

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: EXCELSIOR EN-610 B

Intended Use of the Product

Use of the Substance/Mixture: No use is specified.

Name, Address, and Telephone of the Responsible Party

Company

RHC
1602 North Union Street
Fostoria, Ohio 44830-1158
866-353-9261

Manufacturer

Helmitin Inc.
11110 Airport Road
Olive Branch, MS 38654
Phone: 877.823.2624
www.helmitin.com

Emergency Telephone Number

Emergency Number : CHEMTREC 1-800-424-9300 / CANUTEC 613-996-6666

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Acute Tox. 4 (Oral) H302
Skin Corr. 1A H314
Eye Dam. 1 H318
Skin Sens. 1 H317
Repr. 2 H361
STOT RE 2 H373
Aquatic Acute 1 H400
Aquatic Chronic 1 H410

Full text of H-phrases: see section 16

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

: Danger

Hazard Statements (GHS-US)

: H302 - Harmful if swallowed.
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H361 - Suspected of damaging fertility or the unborn child.
H373 - May cause damage to organs through prolonged or repeated exposure.
H400 - Very toxic to aquatic life.
H410 - Very toxic to aquatic life with long lasting effects.

EXCELSIOR EN-610 B

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Precautionary Statements (GHS-US) : P260 - Do not breathe vapors, mist, or spray.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, and eye protection.
P301+P330+P331+P312 - If swallowed: rinse mouth. Do NOT induce vomiting. Call a poison center or doctor if you feel unwell.
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 at rest in a position 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.

Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product Identifier	% (w/w)
Cyclohexanamine, 4,4'-methylenebis-	(CAS No) 1761-71-3	3 - 7
Nonyl Phenol	(CAS No) 84852-15-3	10 - 30
Tetraethylenepentamine	(CAS No) 112-57-2	1 - 5
Quartz*	(CAS No) 14808-60-7	0.1 – 1.0

*This product contains a material that may be hazardous when present as an airborne dust. Since this product is in a liquid form, the material is not able to become airborne and cannot be inhaled. Thus, the hazards usually associated with this material are not applicable to this product.

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

Skin Contact: Immediately flush skin with plenty of water for at least 60 minutes. Remove/Take off immediately all contaminated clothing. Get immediate medical advice/attention.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician.

Ingestion: Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes severe skin burns and eye damage. May be harmful if swallowed and enters airways. May cause an allergic skin reaction. Suspected of damaging fertility. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure

Inhalation: May cause respiratory irritation.

Skin Contact: Causes severe skin burns. Contact may cause immediate severe irritation progressing quickly to chemical burns. Symptoms may include: Redness, pain, swelling, itching, burning, dryness, and dermatitis. May cause an allergic skin reaction.

Eye Contact: Causes serious eye damage. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision. Causes permanent damage to the cornea, iris, or conjunctiva.

Ingestion: May be fatal if swallowed and enters airways.

Chronic Symptoms: Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure

Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).

EXCELSIOR EN-610 B

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water spray, fog, carbon dioxide (CO₂), alcohol-resistant foam, dry chemical, or sand.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Potentially violent decomposition can occur above 350 °C.

Explosion Hazard: Product is not explosive but if hazardous polymerization occurs can have an oxidizing effect that could lead to fire and possible explosion.

Reactivity: Hazardous reactions may occur on contact with certain chemicals. Refer to incompatible materials.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Under fire conditions this material may produce hazardous carbon dioxide (CO₂), carbon monoxide (CO), various low molecular weight hydrocarbons, and smoke.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid all contact with skin, eyes, or clothing. Avoid breathing vapor, mist, or spray. Use only outdoors or in a well-ventilated area.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Environmental Precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Do not take up in combustible material such as: saw dust or cellulosic material.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely. Spills should be contained with mechanical barriers. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill. Use only non-sparking tools.

Reference to Other Sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: The substance will polymerize due to heating, on contact with incompatible materials, and under the influence of light. Heating may cause violent combustion or explosion producing acrid smoke. The substance may also spontaneously polymerize if it is not stabilized. Product to be handled in a closed system and under strictly controlled conditions.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep in fireproof place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

EXCELSIOR EN-610 B

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Incompatible Materials: Strong acids, strong bases, strong oxidizers. Amines. Fluorine. Ammonium salts.

Specific End Use(s)

No use is specified.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government

Quartz (14808-60-7)		
USA ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³ (respirable fraction)
USA ACGIH	ACGIH chemical category	A2 - Suspected Human Carcinogen
USA OSHA	OSHA PEL (STEL) (mg/m ³)	250 mppcf/%SiO ₂ +5, 10mg/m ³ /%SiO ₂ +2
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	0.05 mg/m ³ (respirable dust)
USA IDLH	US IDLH (mg/m ³)	50 mg/m ³ (respirable dust)
Alberta	OEL TWA (mg/m ³)	0.025 mg/m ³ (respirable particulate)
British Columbia	OEL TWA (mg/m ³)	0.025 mg/m ³ (respirable)
Manitoba	OEL TWA (mg/m ³)	0.025 mg/m ³ (respirable fraction)
New Brunswick	OEL TWA (mg/m ³)	0.1 mg/m ³ (respirable fraction)
Newfoundland & Labrador	OEL TWA (mg/m ³)	0.025 mg/m ³ (respirable fraction)
Nova Scotia	OEL TWA (mg/m ³)	0.025 mg/m ³ (respirable fraction)
Nunavut	OEL TWA (mg/m ³)	0.1 mg/m ³ (respirable mass)
Northwest Territories	OEL TWA (mg/m ³)	0.1 mg/m ³ (respirable mass)
Ontario	OEL TWA (mg/m ³)	0.10 mg/m ³ (designated substances regulation-respirable)
Prince Edward Island	OEL TWA (mg/m ³)	0.025 mg/m ³ (respirable fraction)
Québec	VEMP (mg/m ³)	0.1 mg/m ³ (respirable dust)
Saskatchewan	OEL TWA (mg/m ³)	0.05 mg/m ³ (respirable fraction)
Yukon	OEL TWA (mg/m ³)	300 particle/mL

Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Product to be handled under strictly controlled conditions. Ensure all national/local regulations are observed. Gas detectors should be used when toxic gases may be released. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits.

Personal Protective Equipment: Protective goggles. Gloves. Protective clothing. Face shield. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical safety goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

Environmental Exposure Controls: Do not allow the product to be released into the environment.

Consumer Exposure Controls: Do not eat, drink, or smoke during use

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid - Paste
Appearance	: Thick Dark Grey Paste
Odor	: Not available

EXCELSIOR EN-610 B

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Odor Threshold	: Not available
pH	: Not available
Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: > 390 °F (198.89 °C)
Flash Point	: > 200 °F (93.33 °C)
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Relative Density	: Not available
Specific Gravity	: 1.3
Solubility	: Not available
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Approximately 56,000 cps
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge.
VOC Content	: <12 g/L (<0.1 lbs/gal)

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Hazardous reactions may occur on contact with certain chemicals. Refer to incompatible materials.

Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Ignition sources. Incompatible materials.

Incompatible Materials: Strong acids, strong bases, strong oxidizers. Amines. Fluorine. Ammonium salts.

Hazardous Decomposition Products: Under fire conditions this material may produce hazardous carbon dioxide (CO₂), carbon monoxide (CO), various low molecular weight hydrocarbons, and smoke.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Oral: Harmful if swallowed.

LD50 and LC50 Data:

ATE US (oral)	1,921.59 mg/kg body weight
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Skin Corrosion/Irritation: Causes severe skin burns and eye damage.

Serious Eye Damage/Irritation: Causes serious eye damage.

Respiratory or Skin Sensitization: May cause an allergic skin reaction.

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not classified

Carcinogenicity: Not classified.

Specific Target Organ Toxicity (Repeated Exposure): May cause damage to organs through prolonged or repeated exposure.

Reproductive Toxicity: Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: May cause respiratory irritation.

EXCELSIOR EN-610 B

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Symptoms/Injuries After Skin Contact: Causes severe skin burns. Contact may cause immediate severe irritation progressing quickly to chemical burns. Symptoms may include: Redness, pain, swelling, itching, burning, dryness, and dermatitis. May cause an allergic skin reaction.

Symptoms/Injuries After Eye Contact: Causes serious eye damage. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision. Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: May be fatal if swallowed and enters airways.

Chronic Symptoms: Suspected of damaging fertility or the unborn child.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Cyclohexanamine, 4,4'-methylenebis- (1761-71-3)	
LD50 Oral Rat	1000 mg/kg
Tetraethylenepentamine (112-57-2)	
LD50 Oral Rat	2100 mg/kg
LD50 Dermal Rabbit	660 µl/kg
Quartz (14808-60-7)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rat	> 5000 mg/kg
Quartz (14808-60-7)	
IARC Group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Tetraethylenepentamine (112-57-2)	
LC50 Fish 1	420 mg/l (Exposure time: 96 h - Species: Poecilia reticulata [static])
EC50 Daphnia 1	24.1 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Persistence and Degradability Not available

Bioaccumulative Potential

Tetraethylenepentamine (112-57-2)	
BCF Fish 1	(no bioaccumulation expected)
Log Pow	< 1
Phenol, 4-nonyl-, branched (84852-15-3)	
BCF Fish 1	271

Mobility in Soil Not available

Other Adverse Effects Not available

SECTION 13: DISPOSAL CONSIDERATIONS

Sewage Disposal Recommendations: This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Ecology – Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

In Accordance with DOT

Proper Shipping Name	: CORROSIVE LIQUIDS, N.O.S. (Nonylphenol, Cyclohexanamine, 4,4'-methylenebis-)
Hazard Class	: 8
Identification Number	: UN1760
Label Codes	: 8
Packing Group	: II



EXCELSIOR EN-610 B

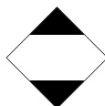
Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

ERG Number : 171

Please note there is a DOT exemption per below:

Limited Quantities : Packages having a volumetric capacity of no more than 1.0L/0.3 gallons and meeting the requirements of 49 CFR 173.154(b) are exempt from many of the DOT requirements for this classification. Each package must display the following limited quantity label.



In Accordance with IMDG

Proper Shipping Name : CORROSIVE LIQUID, N.O.S. (Nonylphenol, Cyclohexanamine, 4,4'-methylenebis-)
Hazard Class : 8
Identification Number : UN1760
Packing Group : II
Label Codes : 8
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B
Marine pollutant : Marine pollutant



In Accordance with IATA

Proper Shipping Name : CORROSIVE LIQUID, N.O.S. (Nonylphenol, Cyclohexanamine, 4,4'-methylenebis-)
Packing Group : II
Identification Number : UN1760
Hazard Class : 8
Label Codes : 8
ERG Code (IATA) : 8L



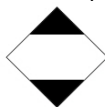
In Accordance with TDG

Proper Shipping Name : CORROSIVE LIQUID, N.O.S. (Nonylphenol, Cyclohexanamine, 4,4'-methylenebis-)
Packing Group : II
Hazard Class : 8
Identification Number : UN1760
Label Codes : 8
Marine Pollutant (TDG) : Marine pollutant



Please note there is a TDG exemption per below:

Limited Quantities : Packages having a volumetric capacity of no more than 1.0L and meeting the requirements of Transportation of Dangerous Goods Part 1 Section 1.17 Limited Quantities are exempt from many of the TDG requirements for this classification. Each package must display the following limited quantity label.



SECTION 15: REGULATORY INFORMATION

US Federal Regulations

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
	Delayed (chronic) health hazard

Cyclohexanamine, 4,4'-methylenebis- (1761-71-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

EXCELSIOR EN-610 B

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Phenol, 4-nonyl-, branched (84852-15-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on United States SARA Section 313	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA. S - S - indicates a substance that is identified in a proposed or final Significant New Uses Rule.
SARA Section 313 - Emission Reporting	1.0 %
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Tetraethylenepentamine (112-57-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

US State Regulations

Proposition 65 –  **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

Quartz (14808-60-7)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
Tetraethylenepentamine (112-57-2)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Canadian Regulations

Cyclohexanamine, 4,4'-methylenebis- (1761-71-3)
Listed on the Canadian DSL (Domestic Substances List)
Phenol, 4-nonyl-, branched (84852-15-3)
Listed on the Canadian DSL (Domestic Substances List)
Quartz (14808-60-7)
Listed on the Canadian DSL (Domestic Substances List)
Listed on the Canadian IDL (Ingredient Disclosure List)
IDL Concentration 1 %
Tetraethylenepentamine (112-57-2)
Listed on the Canadian DSL (Domestic Substances List)
Listed on the Canadian IDL (Ingredient Disclosure List)
IDL Concentration 1 %

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

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 07/20/2023
Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life

EXCELSIOR EN-610 B

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

H410	Very toxic to aquatic life with long lasting effects
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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.

North America GHS US 2012 & WHMIS 2015