

Safety Data Sheet:

Revision Date: 08/14/19

Technical Service
(888)780-3229 (Option 2)



Flexi-Caulk 4916 Part B

1. Product and Company Identification

Product Name: Corro Flexi-Caulk 4916
Product Class: Epoxy Hardener, Part B
Product Type: Cycloaliphatic Amine

D.O.T. Category: UN2735
Manufacturer: Corroshield Industries Inc.
2575 United Lane
Elk Grove Village, IL 60007
847/298-7770

Telephone: 847/298-7770
Emergency: 1-800/535-5053 INFOTRAC
Emergency telephone number (24h): 800-523-9374 USA
+1 610 481 7711 International

2. Hazard(s) Identification

GHS classification

Skin corrosion: Category 1B
Serious Eye Damage: Category 1
Skin sensitization: Category 1
Specific target organ toxicity - repeated exposure: Category 2

GHS label elements

Description: UN2735, Amines, Liquid, Corrosive, N.O.S.;8; PGII, (Benzene-1,3 Dimethaneamine (MXDA)/Trimethylhexamethylenediamine

Hazard pictograms/symbols:



Signal Word: Danger

Hazard Statements:
H314: Causes severe skin burns and eye damage.
H317: May cause an allergic skin reaction.
H373a: May cause damage to organs through prolonged or repeated exposure if swallowed.

Precautionary Statements:

Prevention:
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P264: Wash hands 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): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
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 CENTRE or doctor/physician.
P333+P313 :If skin irritation or rash occurs: Get medical advice/attention.
P363 :Wash contaminated clothing before reuse.

Disposal:
P501: Disposal of contents/container to be specified in accordance with regulations.

Hazards not otherwise classified: Corrosive
Components of the product may affect the nervous system.
Severe eye irritant.

3. Composition – Information on Ingredients

Components	CAS Number	Concentration
Benzyl alcohol	100-51-6	> 35%
Methylenebis(4-chlorophenyl)amine, 4,4'-	1761-71-3	< 35 %

The remaining ingredients are trade secrets.

4. First Aid Measures

General advice: Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.

Eye contact: Hold eyelids apart, initiate and maintain gentle and continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour.

Skin contact: Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Flush immediately with copious amounts of water. Initiate and maintain continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour. Cover wound with sterile dressing.

Ingestion: Do not induce vomiting without medical advice. If a person vomits when lying on his back, place him in the recovery position. Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side.

Inhalation: If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately. Move to fresh air.

Most important symptoms/ effects - acute and delayed: Eye disease. Skin disorders and Allergies. Asthma. Neurological disorders, Liver Disorders.

5. Fire –Fighting Measures

Suitable extinguishing media: Alcohol-resistant foam.
Carbon dioxide (CO₂).
Dry chemical.
Dry sand.
Limestone powder

Specific hazards: Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate toxic nitrogen oxide gases. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.

Special protective equipment for fire-fighters: Avoid contact with the skin. A face shield should be worn. Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.

Further information: Do not allow run-off from fire fighting to enter drains or water courses., Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Wear suitable protective clothing, gloves and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing. Evacuate personnel to safe areas.

Environmental precautions: Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways. Construct a dike to prevent spreading.

Methods for cleaning up: Approach suspected leak areas with caution. Place in appropriate chemical waste container.

Additional advice: Open enclosed spaces to outside atmosphere.. If possible, stop flow of product.

7. Handling and Storage

Handling: Use only in well-ventilated areas. Avoid breathing vapors and/or aerosols. Avoid contact with skin and eyes. Avoid contact with eyes. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Use personal protective equipment. When using, do not eat, drink or smoke.

Storage: Do not store near acids. Keep containers tightly closed in a dry, cool and well-ventilated place. Product may partially freeze with extended exposure to cold temperatures, resulting in crystallization, haziness or separation. If this occurs, product should be warmed to 100-140°F (38-60°C) for one hour and stirred until clear. Do not store near acids. Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure Controls/Personal Protection

Engineering measures: Provide readily accessible eye wash stations and safety showers. Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

Personal protective equipment

Respiratory protection:

Wear appropriate respirator when ventilation is inadequate

Hand protection:

Butyl-rubber

Nitrile rubber.

Neoprene gloves.

PVC disposable gloves

Polyvinyl Alcohol Gloves (PVA).

Impervious gloves.

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eye protection:

Full face shield with goggles underneath.

Chemical resistant goggles must be worn.

Skin and body protection:

Slicker Suit.

Impervious clothing.

Full rubber suit (rain gear). Rubber or plastic boots.

Environmental exposure controls:

Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways.

Special instructions for protection and hygiene:

Discard contaminated leather articles. Wash hands at the end of each workshift and before eating, smoking or using the toilet. Provide readily accessible eye wash stations and safety showers.

Exposure limit(s)

Benzyl alcohol

Time Weighted Average (TWA): WEEL

10 ppm

44.20 mg/m3

9. Physical and Chemical Properties

Appearance: Liquid. Amber

Odor: Ammoniacal.

Odor threshold: No data available.

pH: Alkaline.

Melting point/range: No data available.

Boiling point/range: 405 °F (207 °C)

Flash point: 234 °F (112 °C)

Evaporation rate:	No data available.
Flammability (solid, gas):	Not applicable.
Upper/lower explosion/flammability limit:	Not applicable.
Vapor pressure:	< 10.34 mmHg at 70 °F (21 °C)
Water solubility:	< 0.1 g/l
Relative vapor density:	Not applicable.
Relative density:	1.03 (water = 1)
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.
Molecular Weight:	No data available.
Density:	64.301 lb/ft ³ (1.03 g/cm ³) at 70 °F (21 °C)

10. Stability and Reactivity

Chemical Stability:	Stable under normal conditions.
Conditions to avoid:	No data available.
Materials to avoid:	Reactive metals (e.g. sodium, calcium, zinc etc.). Materials reactive with hydroxyl compounds. Organic acids (i.e. acetic acid, citric acid etc.). Mineral acids. Sodium hypochlorite. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Oxidizing agents.
Hazardous decomposition products:	Nitric acid. Ammonia Nitrogen oxides (NO _x). Nitrogen oxide can react with water vapors to form corrosive nitric acid. Carbon monoxide. Carbon dioxide (CO ₂). Aldehydes Flammable hydrocarbon fragments. Nitrosamine. In case of fire hazardous decomposition products may be produced such as:
Possibility of hazardous Reactions/Reactivity:	No data available.

11. Toxicological Information

11.1 Information on toxicological effects

Likely routes of exposure

Effects on Eye:	Causes eye burns. May cause blindness. Severe eye irritation
Effects on Skin:	Causes skin burns. If absorbed through the skin, may cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties.
Inhalation Effects:	Harmful if inhaled and may cause delayed lung injury. Can cause severe eye, skin and respiratory tract burns. Risk of serious damage to the lungs (by inhalation). May cause nose, throat, and lung irritation. Inhalation of aerosol may cause irritation to the upper respiratory tract. May cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure
Ingestion Effects:	If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach. Harmful if swallowed.
Symptoms:	No data available.
Acute Toxicity	
Acute Oral Toxicity:	LD50 : > 2,000 mg/kg Species : Rat. Method : Estimated

Inhalation:	No data is available on the product itself.
Inhalation – Components	
Benzyl alcohol	LC50 (4 h) : > 4,178 mg/l Species : Rat. OECD Test Guideline 403
Acute Dermal Toxicity:	LD50 : > 2,110 mg/kg Species : Rabbit.
Skin corrosion/irritation:	Corrosive to the skin of a rabbit
Serious eye damage/eye irritation:	Severe eye irritation.
Sensitization:	May cause sensitization of susceptible persons by skin contact
Chronic toxicity or effects from long term exposures	
Carcinogenicity:	No Data available
Reproductive toxicity:	No data is available on the product itself.
Germ cell mutagenicity:	No data is available on the product itself.
Specific target organ systemic toxicity (single exposure):	No data available
Specific target organ systemic toxicity (repeated exposure):	No data available
Aspiration hazard:	No data available
Delayed and Immediate Effects and Chronic Effects from Short and Long Term Exposure:	This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Eye disease., Skin disorders and Allergies., Asthma., Neurological disorders, Liver disorders.

12. Ecological Information

Ecotoxicity effects

Aquatic toxicity:	No data is available on the product itself.	
Toxicity to fish - Components	Data	Species
Benzyl alcohol -	LC50 (96 h) : 10 mg/l	Bluegill sunfish (<i>Lepomis macrochirus</i>).
Benzyl alcohol	LC50 (96 h) : 460 mg/l	Fathead minnow (<i>Pimephales promelas</i>).
Methylenebis(cyclohexyl)amine, 4,4'	LC0 (96 h) : 46 mg/l	Golden orfe (<i>Leuciscus idus</i>).
Methylenebis(cyclohexyl)amine, 4,4'	LC50 (96 h) : > 100 mg/l	Golden orfe (<i>Leuciscus idus</i>).
Toxicity to daphnia – Components		
Methylenebis(cyclohexyl)amine, 4,4'	EC50 (48 h) : 6.84 mg/l	Daphnia magna
Toxicity to algae – Components		
Benzyl alcohol	IC50 (72 h) : 700 mg/l	Algae
Methylenebis(cyclohexyl)amine, 4,4'	EC50 (72 h) : 140 - 200 mg/l	Algae
Toxicity to other organisms	No data available	

Persistence and degradability

Biodegradability:	No data is available on the product itself.
Mobility:	No data available.
Bioaccumulation:	No data is available on the product itself.

Bioaccumulation - Components

Benzyl alcohol:	Low bioaccumulation potential
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13. Disposal Information

Waste from residues / unused products:	The product should not be allowed to enter drains, water courses or the soil; dispose of this material and its container in a safe way. Contact supplier if guidance is required.
Contaminated packaging:	Dispose of container and unused contents in accordance with federal, state, and local requirements.

14. Transport Information

INFORMATION dot

UN/ID No:	UN2735
Shipping name:	Amines, liquid, corrosive, n.o.s., (4,4'-Methylenebiscyclohexanamine)
Class or Division:	8
Packing Group:	III
Label (s):	8
Marine Pollutant:	No

IATA

UN/ID No:	UN2735
Shipping Name:	Amines, liquid, corrosive, n.o.s., (4,4'-Methylenebiscyclohexanamine)
Class or Division:	8
Packing Group:	III
Label (s):	8
Marine Pollutant:	Yes

** NOTE: This product contains a substance that: 1) is regulated as a Marine Pollutant, or 2) meets the definition of toxic to the aquatic environment.

IMDG

UN/ID No:	UN2735
Shipping Name:	AMINES, LIQUID, CORROSIVE, N.O.S., (4,4'-Methylenebiscyclohexanamine)
Class or Division:	8
Packing Group:	III
Label (s):	8
Marine Pollutant:	Yes

** NOTE: This product contains a substance that: 1) is regulated as a Marine Pollutant, or 2) meets the definition of toxic to the aquatic environment.

TDG

UN/ID No:	UN2735
Shipping Name:	AMINES, LIQUID, CORROSIVE, N.O.S., (4,4'-Methylenebiscyclohexanamine)
Class or Division:	8
Packing Group:	III
Label (s):	8
Marine Pollutant:	No

15. Regulatory Information

Toxic Substance Control Act (TSCA) 12(b) Component(s): None.

Country	Regulatory list	Notification
USA	TSCA	Included on Inventory.
EU	EINECS	Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer.
Canada	DSL	Not on Inventory. Notifications have been submitted to Environment Canada.
Australia	AICS	Included on Inventory.
Japan	ENCS	Included on Inventory.
South Korea	ECL	Included on Inventory.
China	SEPA	Included on Inventory.
Philippines	PICCS	Not on Inventory.



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EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification

Acute Health Hazard

EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level

None.

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

16. Other Information

HMIS Rating

Health: 3

Flammability: 1

Physical hazard: 0

Latest Revision: August 14, 2019

THE INFORMATION HEREIN RELATES TO THE PRODUCT NAMED AND IS BASED UPON INFORMATION CORROSHIELD INDUSTRIES INC. CONSIDERS TO BE ACCURATE. NO WARRANTY EXPRESSED OR IMPLIED IS INTENDED.