

SAFETY DATA SHEET

CD PRODUCTS INC
918 N UNION ST
APPLETON, WI 54911
920-739-8685

SECTION 1: CHEMICAL AND MANUFACTURER IDENTIFICATION #5100 PART A NOVOLAC EPOXY

C.D. PRODUCTS INC.
918 N UNION ST
APPLETON, WI 54911

Because many of the conditions are within the user's knowledge and control, it is essential that the user evaluate and determine whether the product is suitable and appropriate for a particular use and intended application, and complies with all local applicable laws, regulatory standards, and guidance.

2. HAZARD IDENTIFICATION

NOVOLAC

- Acute toxicity (oral) : Not applicable
- Skin corrosion/irritation : Not applicable
- Skin sensitization : Not applicable
- Chronic aquatic toxicity : Not applicable

B. GHS label elements

○ Hazard symbols



○ Signal words

- Warning

○ Hazard statements

- H302 Harmful if swallowed
- H315 Causes skin irritation
- H317 May cause an allergic skin reaction
- H411 Toxic to aquatic life with long lasting effects

Precautionary statements

1) Prevention

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 Wash hands thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.

2) Response

- P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P321 Specific treatment
- P330 Rinse mouth.
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P362 Take off contaminated clothing and wash before reuse.
- P363 Wash contaminated clothing before reuse.
- P391 Collect spillage.

3) Storage

- Not applicable

4) Disposal

- P501 Dispose of contents/container in accordance with local/regional/national/international regulation

C. Other hazards which do not result in classification : (NFPA Classification)

o NFPA grade (0 ~ 4 level)

- Health : 2 , Flammability : 1, Reactivity : 0

3. COMPOSTION INFORMATION

Compostion %	chemical name	Trade names and Synonyms	cas #
<50%	4,4'-(1-methylethylidene) bisphenol polymer with (chloromethyl)oxirane	bisphenol A and epi-chlorhydrin resin	25068-38-6
>50%	phenol-formaldehyde polymer glycidyl ether	novolac epoxy resin	28064-14-4

4. FIRST AID MEASURES

A. Eye contact

- Do not rub your eyes.
- Immediately flush eyes with plenty of water for at least 15minutes and call a doctor/physician.

B. Skin contact

- Flush skin with plenty of wter for at least 15 minutes while removing contaminated clothing and shoes.
- Laundering enough contaminated clothing before reuse.
- Go to the hospital immediately if symptoms(flare, irritate) occur.
- Wash thoroughly after handling.

C. Inhalation contact

- When exposed to large amounts of steam and mist, move to fresh air.
- Take specific treatment if needed.

D. Ingestion contact

- About whether I should induce vomiting Take the advice of a doctor.
- Rinse your mouth with water immediately.

E. Delayed and immediate effects and also chronic effects from short and long term exposure

- Not available

F. Notes to physician

- Notify medical personnel of contaminated situations and have them take appropriate protective measures.

5. FIREFIGHTING MEASURES

A. Suitable (Unsuitable) extinguishing media

- Dry chemical, carbon dioxide, regular foam extinguishing agent, spray
- Avoid use of water jet for extinguishing

B. Specific hazards arising from the chemical

Special protective actions for firefighters

- Notify your local firestation and inform the location of the fire and characteristics hazard.
- Using an unattended and water devices in case of large fire and leave alone to burn if you do not imperative.
- Avoid inhalation of materials or combustion by-products.
- Do not access if the tank on fire.
- Use appropriate extinguishing measure suitable for surrounding fire.
- Keep containers cool with water spray.

- Vapor or gas is burned at distant ignition sources can be spread quickly.
- Move container to safe area from the leak area.
- Remove all sources of ignition.
- Do not direct water at spill or source of leak.
- Avoid skin contact and inhalation.

B. Environmental precautions

- Prevent runoff and contact with waterways, drains or sewers.

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6. ACCIDENTAL RELEASE MEASURES

A. Personal precautions, protective equipment and emergency procedures

- Must work against the wind, let the upwind people to evacuate.
- If large amounts have been spilled, inform the relevant authorities.

C. Methods and materials for containment and cleaning up

Use appropriate PPE

- Large spill : Stay upwind and keep out of low areas. Dike for later disposal.
- Notification to central government, local government. When emissions at least of the standard amount
- Dispose of waste in accordance with local regulation.
- Appropriate container for disposal of spilled material collected.
- Small leak: sand or other non-combustible material, please let use absorption.
- Wipe off the solvent.
- Dike for later disposal.

Prevent the influx to waterways, sewers, basements or confined spaces.

If large amounts have been spilled, inform the relevant authorities

C. Methods and materials for containment and cleaning up

- Large spill : Stay upwind and keep out of low areas. Dike for later disposal.
 - Notification to central government, local government. When emissions at least of the standard amount
- Dispose of waste in accordance with local regulation.
- Appropriate container for disposal of spilled material collected

7 HANDLING AND STORAGE

A. Precautions for safe handling

- Wash thoroughly after handling.
- Avoid direct physical contact.
- Avoid contact with incompatible materials.
- Refer to Engineering controls and personal protective equipment.
- Do not inhale the steam prolonged or repeated.

B. Conditions for safe storage, including any incompatibilities

Use appropriate PPE

- Do not use damaged containers.
- Do not apply direct heat.
- Save applicable laws and regulations.
- Avoid direct sunlight.
- Keep in the original container.
- Collected them in sealed containers.
- Do not eat, drink or smoke when using this product.
- Store away from water and sewer.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

A. Exposure limits

- None

B. Engineering controls

- A system of local and/or general exhaust is recommended to keep employee exposures above the Exposure Limit. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, general work area. The use of local exhaust ventilation is recommended to control emissions near the source.

C. Personal protective equipment

- Under conditions of frequent use or heavy exposure, Respiratory protection may be needed.
- Respiratory protection is ranked in order from minimum to maximum.

Consider warning properties before use.

Any chemical cartridge respirator with organic vapor cartridge(s).

Eye protection

Hand protection

Skin protection

- Wear appropriate clothing.
- Any chemical cartridge respirator with a full facepiece and organic vapor cartridge(s).
- Any air-purifying respirator with a full facepiece and an organic vapor canister.
- For Unknown Concentration or Immediately Dangerous to Life or Health : Any supplied-air respirator in pressure-demand or other positive-pressure mode in combination with a separate escape supply. Any full facepiece.
- Wear primary eye protection such as splash resistant safety goggles with a secondary protection face shield.
- Provide an emergency eye wash station and quick drench shower in the immediate work area.
- Wear appropriate glove.
- o **Others**
 - Not available

9. PHYSICAL AND CHEMICAL PROPERTIES

A. Appearance

Color clear pale yellow

B. Odor very slight

C. Odor threshold n/a

D. Ph n/a

E. Melting point/Freezing point N/A LIQUID AT ROOM TEMPERATURE

F. Initial Boiling Point/Boiling Ranges >200C

G. Flash point 200C

H. Evaporation rate N/A

I. Flammability(solid, gas) N/A

J. Upper/Lower Flammability or explosive limits N/A

K. Vapour pressure <.01PA @ 20C

L. Solubility IN WATER SLIGHT

M. Vapour density N/A

N. Specific gravity(Relative density) 9.63

O. Partition coefficient of n-octanol/water LOW POW <3 (N-OCTANOL.WATER STD)

P. Autoignition temperature N/A

Q. Decomposition temperature N.A

R. Viscosity 1500CPS

S. Molecular weight na

10. STABILITY AND REACTIVITY

A.CHEMICAL STABILITY AND REACTIVITY

This materials is stable under recommended storage and handling conditions

B. POSSIBILITY OF HAZARDOUS REACTIONS

hazardous polymerization will not occur

C. CONDITONS TO AVOID

avoid contact with incompatable materials-caustics, alkalais,strong oxidizers- and conditions

avoid accumulation of electrostatic charges, heating, and hot surfaces

D. INCOMPATABLE MATERIALS

strong alkalis

E. HAZARDOUS COMOPOSITION PRODUCTS

may emit flammable vapors if involved in fire

11. TOXICOLOGICAL INFORMATION

A. INFORMATION ON THE LIKELY ROUTES OF EXPOSURE

RESPIRATORY N/A

ORAL harmful of swallowed

EYE-SKIN causes skin irritation, may cause an allergic skin reaction

B. DELAYED AND IMMEDIATE EFFECTS ALSO CHRONIC EFFECTS FROM SHORT AND LOING TERM EXPOSURE ACUTE TOXICITY

ORAL-

- This material is stable under recommended storage and handling conditions.

B. Possibility of hazardous reactions

- Hazardous Polymerization will not occur.

C. Conditions to avoid

- Avoid contact with incompatible materials and condition.

- Avoid : Accumulation of electrostatic charges, Heating, Flames and hot surfaces

D. Incompatible materials

- Not available

E. Hazardous decomposition products

- May emit flammable vapour if involved in fire.

11. TOXICOLOGICAL INFORMATION

A. Information on the likely routes of exposure

- Not available

- Harmful if swallowed

- Causes skin irritation

- May cause an allergic skin reaction

B. Delayed and immediate effects and also chronic effects from short and long term exposure

Acute toxicity

*** Oral**

- [4,4'-(1-methylethylidene)bisphenol polymer with (chloromethyl)oxirane] : LD50 > 1000 mg/kg Rat

*** Dermal**

- [4,4'-(1-methylethylidene)bisphenol polymer with (chloromethyl)oxirane] : LD50 > 20000 mg/kg Rabbit

*** Inhalation**

- Not available

o Skin corrosion/irritation

- Causes skin irritation

o Serious eye damage/irritation

- Not available

o Respiratory sensitization

- Not available

o Skin sensitization

- May cause an allergic skin reaction

o Carcinogenicity

*** IARC**

- Not available

*** OSHA**

- Not available

*** ACGIH**

- Not available

*** NTP**

- Not available

*** EU CLP**

- Not available

o Germ cell mutagenicity

- Not available

o Reproductive toxicity

- Not available

o STOT-single exposure

- Not available

o stot-repeated exposure

Not applicable

-Aspiration hazard

N/a

12 ECOLOGICAL INFORMATION

- Not available

- Not available

12. ECOLOGICAL INFORMATION

A. Ecotoxicity

- [4,4'-(1-methylethylidene)bisphenol polymer with (chloromethyl)oxirane] : LC50 = 1.41 mg/ℓ 96 hr Oryzias lat

- [4,4'-(1-methylethylidene)bisphenol polymer with (chloromethyl)oxirane] : EC50 = 1.7 mg/ℓ 48 hr

○ Algae

- Not available

B. Persistence and degradability

○ Persistence

- [4,4'-(1-methylethylidene)bisphenol polymer with (chloromethyl)oxirane] : log Kow = 2.821 (Estimates)

○ Degradability

- Not available

C. Bioaccumulative potential

○ Bioaccumulative potential

- [4,4'-(1-methylethylidene)bisphenol polymer with (chloromethyl)oxirane] : BCF = 0.56 ~ 0.67 (Exposure conc 5.6<=BCF<=6.8(Exposure concentrations:1ug/l))

○ Biodegradation

- [4,4'-(1-methylethylidene)bisphenol polymer with (chloromethyl)oxirane] : Biodegradability = 0 (%) 28 day

D. Mobility in soil

- Not available

E. Other adverse effects

n/a

13. DISPOSAL CONSIDERATIONS

A. Disposal methods

- Since more than two kinds of designaed waste is mixed, it is difficult to treat seperatly, then can be reduction similar process.

- If water separation is possible, pre-process with Water separation process.

- Dispose by incineration.

- Incinerate the oil by separating the oil and water

- The remainder of the water after separation will be processed in a water pollution prevention facilities.

- Do incineration or stabilization of the residue after disposal as the method of evaporation and concentration.

- Do incineration of the residue after disposal as the method of agglomeration and precipitation.

- Take care of incinerate or stabilization after treatment, purified by means of Separation, distillation, extraction, filtration,or pyrolysis

14. TRANSPORTATION CONSIDERATIONS

A. UN No. (IMDG)

- Non Hazmat

B. Proper shipping

name

- Non Hazmat

C. hazard class

Non hazardous

D. IMDG PACKING

GROUP

non hasmet

E. MARINE

POLLUTANT

non hasmet

**F SPECIAL
PRECAUTIONS FOR
USER RELATED TO
TRANSPORT OR
TRANSPORTATION
MEASURES**

Local transport follows in accordance with Dangerous Goods Safety Management Law.
- Package and transport follow in accordance with Department of Transportation (DOT) and other regulatory agency requirements.
- EmS FIRE SCHEDULE : Not available
- EmS SPILLAGE SCHEDULE : Not available

15 .REGULATORY INFORMATION

Management Law

○ **Information of EU Classification** NA

*** Classification**

- [4,4'-(1-methylethylidene)bisphenol polymer with (chloromethyl)oxirane] : Xi; R36/38 R43 N; R51-53

*** Risk Phrases**

- [4,4'-(1-methylethylidene)bisphenol polymer with (chloromethyl)oxirane] : R36/38, R43, R51/53

*** Safety Phrase**

- [4,4'-(1-methylethylidene)bisphenol polymer with (chloromethyl)oxirane] : S2, S28, S37/39, S61

○ **U.S. Federal regulations**

* **OSHA PROCESS SAFETY (29CFR1910.119)** NA

* **CERCLA Section 103 (40CFR302.4)** NA

* **EPCRA Section 302 (40CFR355.30)** NA

* **EPCRA Section 304 (40CFR355.40)** NA

* **EPCRA Section 313 (40CFR372.65)** NA

○ **Rotterdam Convention listed ingredients** NA

○ **Stockholm Convention listed ingredients** NA

○ **Montreal Protocol listed ingredients** NA

16. OTHER INFORMATION

A. Reference

- The information contained herein is believed to be accurate. It is provided independently of any sale of the product. It is not intended to constitute performance information concerning the product. No express warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information.

- This Safety Data Sheet was compiled with data and information from the following sources: KOSHA, NITE, etc.

B. Issue date

- 2015-07-14

C. Revision number and Last date revised

- 2015-07-14

D. Other

- This SDS is prepared according to the Globally Harmonized System (GHS).

HEALTH 2, FLAMABILITY 1, PHYSICAL HAZARDS 0

THE HMIS RATINGS ARE A 0-4 RATING SCALE WITH 0 REPRESENTING MINIMAL HAZARDS, AND 4 REPRESENTING SIGNIFICANT HAZARDS.