

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 03.02.2018

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ECC Epoxy

SECTION 1: Identification

Product identifier

Product name: ECC Epoxy

Product code: ECC-1

Recommended use of the product and restriction on use

Relevant identified uses: Liquid epoxy resin

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:

North America

Gougeon Brothers, Inc.
100 Patterson Ave.
Bay City, MI 48706, U.S.A.
310-882-2120
safety@entropyresin.com

Supplier:

Canada

Composites One
26596 Gloucester Way Unit #105
Langley, BC V4W 4A8

Emergency telephone number:

North America

CHEMTREC

800-424-9300 US

703-527-3887 International

SECTION 2: Hazard identification

GHS classification:

Skin irritation, category 2

Eye irritation, category 2A

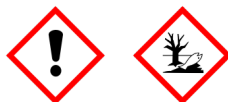
Skin sensitization, category 1

Acute aquatic hazard, category 3

Chronic aquatic hazard, category 2

Label elements

Hazard pictograms:



Signal word: Warning

Hazard statements:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H402 Harmful to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

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Precautionary statements:

- P264 Wash skin and eyes thoroughly after handling.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P273 Avoid release to the environment.
- P321 Specific treatment (see supplemental first aid instructions on this label).
- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P332+P313 If skin irritation occurs: Get medical advice/attention
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists get medical advice/attention
- P333+P313 If skin irritation or a rash occurs: Get medical advice/attention
- P391 Collect spillage
- P501 Dispose of contents/container to ...

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 2530-83-8	(3-Glycidoxypropyl)trimethoxysilane	<2
CAS number: 68609-97-2	Oxirane, 2-((C12-14-alkyloxy)methyl) derivs.	5-10
CAS number: 129757-67-1	Decanedioic acid, 1,10-bis(2,2,6,6-tetramethyl-4-piperidinyloxy) ester, reaction products with tert-Bu hydroperoxide and octane	<1
CAS number: 25068-38-6	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	85-90
CAS number: 64742-47-8	Distillates (petroleum), hydrotreated light	<1
CAS number: 57834-33-0	Ethyl 4-[[[(methylphenylamino)methylene]amino]benzoate	<2

Additional Information: None

SECTION 4: First-aid measures

Description of first-aid measures

General notes:

Not determined or not available.

After inhalation:

- Loosen clothing as necessary and position individual in a comfortable position
- Maintain an unobstructed airway
- Get medical advice/attention if you feel unwell

After skin contact:

- Wash affected area with soap and water

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Seek medical attention if symptoms develop or persist

After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes

Remove contact lens(es) if able to do so during rinsing

Seek medical attention if irritation persists or if concerned

After ingestion:

Rinse mouth and then drink plenty of water

Do not induce vomiting

Get medical advice/attention if you feel unwell

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Not determined or not available.

Delayed symptoms and effects:

Not determined or not available.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not available.

Notes for the doctor:

Not determined or not available.

SECTION 5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

Unsuitable extinguishing media:

Do not use water as an extinguisher

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

Special protective equipment for firefighters:

Wear protective eye wear, gloves and clothing

Refer to Section 8

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

Special precautions:

Heating causes a rise in pressure, risk of bursting and combustion

Shut off sources of ignition

Carbon monoxide and carbon dioxide may form upon combustion

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation

Ensure air handling systems are operational

Wear protective eye wear, gloves and clothing

Environmental precautions:

Should not be released into the environment

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Prevent from reaching drains, sewer or waterway

Methods and material for containment and cleaning up:

Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders)

Dispose of contents / container in accordance with local regulations

Reference to other sections:

Not determined or not applicable.

SECTION 7: Handling and storage

Precautions for safe handling:

Do not eat, drink, smoke or use personal products when handling chemical substances.

Avoid breathing mist or vapor.

Use only with adequate ventilation.

Conditions for safe storage, including any incompatibilities:

Store in a cool, well-ventilated area.

Store away from foodstuffs.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
Bulgaria	Distillates (petroleum), hydrotreated light	64742-47-8	TWA: 300 mg/m ³
Estonia	Distillates (petroleum), hydrotreated light	64742-47-8	8-hour TWA: 1 mg/m ³
Latvia	Distillates (petroleum), hydrotreated light	64742-47-8	8-hour TWA: 10 mg/m ³ (Naphtha)
	Distillates (petroleum), hydrotreated light	64742-47-8	8-hour TWA: 100 mg/m ³ (Petroleum benzin)
Lithuania	Distillates (petroleum), hydrotreated light	64742-47-8	8-hour TWA: 180 mg/m ³ (50 ppm) [Petrol ether (industrial) - hexane based]
	Distillates (petroleum), hydrotreated light	64742-47-8	15-minute STEL: 250 mg/m ³ (75 ppm) [Petrol ether (industrial) - hexane based]
	Distillates (petroleum), hydrotreated light	64742-47-8	15-minute STEL: 1200 mg/m ³ (300 ppm) [Petrol ether (industrial) - heptane based (< 5% n-hexane)]
	Distillates (petroleum), hydrotreated light	64742-47-8	8-hour TWA: 800 mg/m ³ (200 ppm) [Petrol ether (industrial) - heptane based (< 5% n-hexane)]
	Distillates (petroleum), hydrotreated light	64742-47-8	8-hour TWA: 900 mg/m ³ (200 ppm) [Petrol ether (industrial) - octane based]
	Distillates (petroleum), hydrotreated light	64742-47-8	15-minute STEL: 1400 mg/m ³ (300 ppm) [Petrol ether (industrial) - octane based]
	Distillates (petroleum), hydrotreated light	64742-47-8	8-hour TWA: 350 mg/m ³ (Decanes and other high aliphatic compounds)

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Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Distillates (petroleum), hydrotreated light	64742-47-8	15-minute STEL: 500 mg/m ³ (Decanes and other high aliphatic compounds)
Poland	Distillates (petroleum), hydrotreated light	64742-47-8	8-hour TWA (NDS): 100 mg/m ³ (Naphtha)
	Distillates (petroleum), hydrotreated light	64742-47-8	15-minute STEL (NDSCh): 300 mg/m ³ (Naphtha)
	Distillates (petroleum), hydrotreated light	64742-47-8	8-hour TWA (NDS): 500 mg/m ³ (Benzene, extraction)
	Distillates (petroleum), hydrotreated light	64742-47-8	15-minute STEL (NDSCh): 1500 mg/m ³ (Benzene, extraction)
Romania	Distillates (petroleum), hydrotreated light	64742-47-8	8-hour TWA: 100 mg/m ³ [Solvent naphtha (coal tar)]
	Distillates (petroleum), hydrotreated light	64742-47-8	15-minute STEL: 200 mg/m ³ [Solvent naphtha (coal tar)]
Belgium	Distillates (petroleum), hydrotreated light	64742-47-8	8-hour TWA: 200 mg/m ³ (Kerosene (As total hydrocarbons vapor) Limited to application with minimal exposure to aerosols)
Finland	Distillates (petroleum), hydrotreated light	64742-47-8	8-hour limit: 500 mg/m ³
Italy	Distillates (petroleum), hydrotreated light	64742-47-8	8-hour TWA: 200 mg/m ³
Portugal	Distillates (petroleum), hydrotreated light	64742-47-8	8-Hour exposure limit: 200 mg/m ³ (400 ppm)
Spain	Distillates (petroleum), hydrotreated light	64742-47-8	8-hour daily exposure limit (VLA_ED): 200 mg/m ³
Sweden	Distillates (petroleum), hydrotreated light	64742-47-8	Level Limit Value (NGV): 350 mg/m ³
	Distillates (petroleum), hydrotreated light	64742-47-8	Short Term Limit (KTV): 500 mg/m ³
Brazil	Distillates (petroleum), hydrotreated light	64742-47-8	8-Hour Exposure Limit (TLV-TWA): 200 mg/m ³
ACGIH	Distillates (petroleum), hydrotreated light	64742-47-8	8-Hour Exposure Limit (TLV-TWA): 200 mg/m ³
NIOSH	Distillates (petroleum), hydrotreated light	64742-47-8	NIOSH Recommended exposure limit (REL) [for up to a 10-hour workday during a 40-hour workweek]: 400 mg/m ³ (100 ppm)
	Distillates (petroleum), hydrotreated light	64742-47-8	NIOSH Immediately dangerous to life or health (IDLH) concentration: 1000 ppm.
United States (OSHA)	Distillates (petroleum), hydrotreated light	64742-47-8	OSHA TWA: 400 mg/m ³ (100 ppm)
Canada	Distillates (petroleum), hydrotreated light	64742-47-8	Alberta OELs - 8-Hour TWA Exposure Limit: 200 mg/m ³ (Kerosene/Jet fuels, as total hydrocarbon vapor)
	Distillates (petroleum), hydrotreated light	64742-47-8	Alberta OELs - 8-Hour TWA Exposure Limit: 1590 mg/m ³ (400 ppm) (Naphtha (Rubber solvent))
	Distillates (petroleum), hydrotreated light	64742-47-8	British Columbia OELs - 8-Hour TWA Exposure Value: 200 mg/m ³
	Distillates (petroleum), hydrotreated light	64742-47-8	Manitoba OELs - 8-Hour Exposure Limit (TLV-TWA): 200 mg/m ³

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Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Distillates (petroleum), hydrotreated light	64742-47-8	Ontario OELs - 8-Hour TWA Exposure Value (TWA): 200 mg/m ³
	Distillates (petroleum), hydrotreated light	64742-47-8	Ontario OELs - 8-Hour TWA Exposure Value (TWA): 525 mg/m ³ (Mineral spirits)
	Distillates (petroleum), hydrotreated light	64742-47-8	Quebec OELs - 8-Hour TWA Exposure Value: 1590 mg/m ³ (400 ppm)
	Distillates (petroleum), hydrotreated light	64742-47-8	Saskatchewan OELs - 8 hour average contamination limit: 200 mg/m ³ (Kerosene/Jet fuels, as total hydrocarbon vapor)
	Distillates (petroleum), hydrotreated light	64742-47-8	Saskatchewan OELs - 15 minute average contamination limit: 250 mg/m ³ (Kerosene/Jet fuels, as total hydrocarbon vapor)
	Distillates (petroleum), hydrotreated light	64742-47-8	Saskatchewan OELs - 8 hour average contamination limit: 400 ppm (Rubber solvent (naphtha))
	Distillates (petroleum), hydrotreated light	64742-47-8	Saskatchewan OELs - 15 minute average contamination limit: 500 ppm (Rubber solvent (naphtha))
Mexico	Distillates (petroleum), hydrotreated light	64742-47-8	Time Weighted Average Exposure Limit Value (VLE-PPT): 200 mg/m ³ (Kerosene)

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Personal protection equipment

Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.

Select glove material based on rates of diffusion and degradation.

Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

General hygienic measures:

Wash hands before breaks and at the end of work.

Avoid contact with skin, eyes and clothing.

Perform routine housekeeping.

Wash contaminated clothing before reusing.

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SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance (physical state, color):	Clear/pale yellow liquid
Odor:	Slight
Odor threshold:	Not determined or not available.
pH-value:	Not determined or not available.
Melting/Freezing point:	Not determined or not available.
Boiling point/range:	Not determined or not available.
Flash point:	> 200°C
Evaporation rate:	Not determined or not available.
Flammability (solid, gaseous):	Not determined or not available.
Explosion limit upper:	Not determined or not available.
Explosion limit lower:	Not determined or not available.
Vapor pressure:	Not determined or not available.
Vapor density:	Not determined or not available.
Density:	1,100-1,200 kg/m ³ @ 25°C
Relative density:	Not determined or not available.
Solubilities:	Not soluble in water.
Partition coefficient (n-octanol/water):	Not determined or not available.
Auto/Self-ignition temperature:	Not determined or not available.
Decomposition temperature:	Not determined or not available.
Dynamic viscosity:	500-1,000 cP @ 25°C
Kinematic viscosity:	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:

Does not react under normal conditions of use and storage.

Chemical stability:

Stable under normal conditions of use and storage.

Possibility of hazardous reactions:

None under normal conditions of use and storage.

Conditions to avoid:

None known.

Incompatible materials:

None known.

Hazardous decomposition products:

None known.

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SECTION 11: Toxicological information

Acute toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Skin corrosion/irritation

Assessment: Causes skin irritation

Product data:

No data available.

Substance data:

Name	Result
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Irritating to the skin.
Oxirane, 2-((C12-14-alkyloxy)methyl) derivs.	Irritating to the skin.

Serious eye damage/irritation

Assessment: Causes serious eye irritation

Product data:

No data available.

Substance data:

Name	Result
(3-Glycidoxypropyl)trimethoxysilane	Corrosive to the eyes.
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Irritating effect on the eyes.

Respiratory or skin sensitization

Assessment: May cause an allergic skin reaction

Product data:

No data available.

Substance data:

Name	Result
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Sensitization possible through skin contact.
Oxirane, 2-((C12-14-alkyloxy)methyl) derivs.	Sensitization possible through skin contact.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

International Agency for Research on Cancer (IARC):

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Name	Classification
Distillates (petroleum), hydrotreated light	Group 3 - Not classifiable as to its carcinogenicity to humans

National Toxicology Program (NTP): None of the ingredients are listed.

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Specific target organ toxicity (repeated exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Information on likely routes of exposure:

No data available.

Symptoms related to the physical, chemical and toxicological characteristics:

No data available.

Other information:

No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Harmful to aquatic life

Product data: No data available.

Substance data:

Name	Result
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	EC50 - Scenedesmus capricornutum - 9 mg/L - 48 h

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Chronic (long-term) toxicity

Product data: No data available.

Substance data: No data available.

Persistence and degradability

Product data: No data available.

Substance data: No data available.

Bioaccumulative potential

Product data: No data available.

Substance data: No data available.

Mobility in soil

Product data: No data available.

Substance data: No data available.

Other adverse effects: No data available.

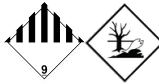
SECTION 13: Disposal considerations

Disposal methods:

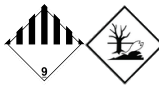
It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11)

SECTION 14: Transport information

Canadian Transportation of Dangerous Goods (TDG)

UN number	3082
UN proper shipping name	Environmentally Hazardous Substance, Liquid, (Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin)
UN transport hazard class(es)	9 
Packing group	III
Environmental hazards	Marine Pollutant
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	3082
UN proper shipping name	Environmentally Hazardous Substance, Liquid, (Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin)
UN transport hazard class(es)	9 
Packing group	III
Environmental hazards	Marine Pollutant
Special precautions for user	None

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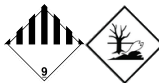
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EmS number	F-A, S-F
Excepted quantities	30mL inner pckg; 1L outer pckg
Limited quantity	5L

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	3082
UN proper shipping name	Environmentally Hazardous Substance, Liquid, (Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin)
UN transport hazard class(es)	9 
Packing group	III
Environmental hazards	Marine Pollutant
Special precautions for user	None
Excepted quantities	30mL inner pckg; 1L outer pckg
Limited quantity	30 kg G

SECTION 15: Regulatory information

Canada regulations

Domestic substances list (DSL):

25068-38-6	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Listed
68609-97-2	Oxirane, 2-((C12-14-alkyloxy)methyl) derivs.	Listed
57834-33-0	Ethyl 4-[[methylphenylamino)methylene]amino]benzoate	Not Listed
129757-67-1	Decanedioic acid, 1,10-bis(2,2,6,6-tetramethyl-4-piperidiny) ester, reaction products with tert-Bu hydroperoxide and octane	Listed
64742-47-8	Distillates (petroleum), hydrotreated light	Listed
2530-83-8	(3-Glycidoxypropyl)trimethoxysilane	Listed

Non-domestic substances list (NDSL):

57834-33-0	Ethyl 4-[[methylphenylamino)methylene]amino]benzoate	Listed
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SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no

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liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

NFPA: 2-0-0

HMIS: 2-0-0

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End of Safety Data Sheet