

CBF-100 Conductive Body Filler

CBF-100

SDS Revision Date (dd/mm/yyyy): 12/10/2018

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SAFETY DATA SHEET

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006, as amended.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier : **CBF-100 Conductive Body Filler**

Product Code(s) : CBF-100

1.2 Relevant identified uses of the substance or mixture and uses advised against

: Sheet metal body filler.
Use pattern: professional use.
No restrictions on use known.

1.3 Details of the supplier of the safety data sheet:

Midwest Thermal Spray

23164 Commerce Drive
Farmington Hills, Michigan, U.S.A.
48335

Contact: David Sartor

Email: ds@midwestthermal.com

Telephone : +1 (248) 442-6540

1.4 Emergency Telephone Number

: +1 (810) 602-0394

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Black paste. Slight odour.

Most important hazards:

Irritating to eyes and skin. May cause an allergic skin reaction. Occupational exposure to the substance or mixture may cause adverse effects. For further information, please refer to section 11 of the SDS.

Toxic to aquatic life with long lasting effects. Avoid release to the environment. See Section 12 for more environmental information.

This mixture is classified as hazardous in accordance with Regulation (EC) No 1272/2008. Classification:

Skin irritation - Category 2; H315

Eye damage/irritation - Category 2 ;H319

Skin sensitization - Category 1; H317

Chronic aquatic hazard - Category 2; H411

2.2 Label elements

Hazard pictogram(s)



Hazardous components which must be listed on the label:

Epoxy resin (number average molecular weight \leq 700); p-tert-butylphenyl 1-(2,3-epoxy)propyl ether; Epichlorohydrin Polyglycol Resin Polymer.

Signal word:

Warning!

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Hazard statements:

- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H319 - Causes serious eye irritation.
- H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements:

- P272 - Contaminated work clothing should not be allowed out of the workplace.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves and eye/face protection.
- P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention.
- P362 + P364 - Take off contaminated clothing and wash it before reuse.
- P337 + P313 - If eye irritation persists: get medical advice/attention.
- P391 - Collect spillage.
- P501 - Dispose of contents/container in accordance with local regulation.

2.3 Other hazards

Other hazards which do not result in classification:

Burning produces obnoxious and toxic fumes. Reacts with air to form peroxides. Rate of peroxide formation is not known. Excessive heating above 50°C / 122°F may degrade the resin component. If product is heated or mists are formed, inhalation may cause irritation to the nose, throat and respiratory tract. May cause an allergic respiratory reaction (e.g. asthma) in some hypersensitive individuals. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

PBT assessment:

This mixture contains no substance(s) above reportable levels which are considered to be persistent, bioaccumulating nor toxic (PBT), or very persistent and very bioaccumulating (vPvB).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

Chemical nature: Mixture - Epoxy resin; Inorganic substances in powdered form; Ether.

The following substances shall be indicated according to legislation:

Chemical name	CAS #	EC No.	Concentration	CLP Classification
Epoxy resin (number average molecular weight ≤ 700)	25068-38-6	500-033-5	51.0%	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Chronic 2; H411
Graphite	7782-42-5	231-955-3	30.7%	Not hazardous (self classified) Substances for which there are Member Country workplace exposure limits.
p-tert-butylphenyl 1-(2,3-epoxy)propyl ether	3101-60-8	221-453-2	11.0%	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Chronic 2; H411 (self classified)
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 2-methylimidazole	68002-42-6	500-181-0	5.0%	Not hazardous (self classified)

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Epichlorohydrin Polyglycol Resin Polymer	41638-13-5	Polymer	2.0%	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Chronic 3; H412 (similar materials)
Carbon black	1333-86-4	215-609-9	0.3%	Carc. 2; H351 STOT RE 1; H370 (self classified)

For the full text of the H phrases not mentioned in this Section or in Section 2, see Section 16.

SECTION 4. FIRST-AID MEASURES

4.1 Description of first aid measures

- Ingestion* : If ingested, do not induce vomiting. Never give anything by mouth to an unconscious person. When symptoms persist or in all cases of doubt, seek medical advice.
- Inhalation* : If breathed in, move person into fresh air. If breathing has stopped, give artificial respiration. When symptoms persist or in all cases of doubt, seek medical advice.
- Skin contact* : IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.
- Eye contact* : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

- : Causes skin irritation. Contact may cause redness, swelling and a painful sensation.
- : Causes serious eye irritation. Symptoms may include stinging, tearing, redness and swelling.
- : May cause an allergic skin reaction. May cause severe skin sensitization with allergic contact dermatitis symptoms such as swelling, rash and eczema.
- : If product is heated or mists are formed, inhalation may cause irritation to the nose, throat and respiratory tract. May cause coughing and breathing difficulties.
- : Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

4.3 Indication of any immediate medical attention and special treatment needed

- : Provide general supportive measures and treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

- : Foam; Dry chemical; Water spray; Carbon dioxide (CO₂).

Unsuitable extinguishing media

- : Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

- : Not flammable under normal conditions of use. Excessive heating above 50°C / 122°F may degrade the resin component. Reacts with air to form peroxides. Rate of peroxide formation is not known. The pressure in sealed containers can increase under the influence of heat. In the event of fire the following can be released: Carbon oxides; Nitrogen oxides (NO_x); Aldehydes; Phenol; Sulphur oxides.

5.3 Advice for firefighters

Protective equipment for fire-fighters

- : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

Special fire-fighting procedures

- : Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

- : Wear suitable protective equipment. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

- : Do not allow material to contaminate ground water system.

6.3 Methods and material for containment and cleaning up

- : Ventilate the area. Prevent further leakage or spillage if safe to do so. Remove all sources of ignition. Use inert, non-combustible absorbents to assist the pick up of material. Pick up and transfer to properly labeled containers. Contact the proper local authorities. Clean contaminated floors and objects thoroughly while observing environmental regulations.

6.4 Reference to other sections

- : Refer to protective measures listed in sections 7 and 8. Refer to Section 13 for disposal of contaminated material.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

- : Persons with recurrent skin eczema or sensitization problems should be excluded from working with this product. Once a person is sensitized, no further exposure to the material that caused the sensitization should be permitted.
Use only in well-ventilated areas. Wear suitable protective equipment. Wear protective gloves and eye/face protection. Avoid breathing fumes or vapors. Avoid contact with skin, eyes and clothing. Keep away from extreme heat and direct flame. Keep away from incompatibles. Keep containers closed when not in use. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.

7.2 Conditions for safe storage, including any incompatibilities

- : Store in cool/well-ventilated place. Keep away from heat. Inspect periodically for damage or leaks. Protect against physical damage. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Store away from incompatible materials (see Section 10 of the SDS).

7.3 Specific end use(s)

- : Filler.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters

Exposure Limits:			
Chemical Name	Exposure Limits	Type	Notes
4,4'-Isopropylidenediphenol, 2-methylimidazole	oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with None known.	European Union (OEL)	None.
Carbon black	3.5 mg/m ³ (TWA)	France (OEL)	None.
	4 mg/m ³ (total inhalable dust) (TWA)	Poland (OEL)	None.
	3.5 mg/m ³ (TWA)	Spain (OEL)	None.
	3.5 mg/m ³ (TWA) 7 mg/m ³ (STEL)	The United Kingdom (WELs)	None.

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Epichlorohydrin Polyglycol Resin Polymer	1 mg/m ³ (TWA)	Bulgaria (OEL)	(non-solid, as Epichlorohydrin)
	2 ppm (10 mg/m ³) (STEL)	France (OEL)	(as epichlorohydrin)
	1 mg/m ³ (TWA)	Poland (OEL)	(as epichlorohydrin)
	0.5 ppm (1.9 mg/m ³) (as epichlorohydrin) (TWA)	Spain (OEL)	Skin - Potential for cutaneous absorption
	0.5 ppm (1.9 mg/m ³) (TWA) 1.5 ppm (5.8 mg/m ³) (STEL)	The United Kingdom (WELs)	(as epichlorohydrin)
Epoxy resin (number average molecular weight ≤ 700)	1.0 mg/m ³ (TWA)	Bulgaria (OEL)	(non-solid, as Epichlorohydrin)
	2 ppm (10 mg/m ³) (STEL)	France (OEL)	(as epichlorohydrin)
	1 mg/m ³ (TWA)	Poland (OEL)	(as epichlorohydrin)
	0.5 ppm (1.9 mg/m ³) (as epichlorohydrin) (TWA)	Spain (OEL)	Skin - Potential for cutaneous absorption
	0.5 ppm (1.9 mg/m ³) (TWA) 1.5 ppm (5.8 mg/m ³) (STEL)	The United Kingdom (WELs)	(as epichlorohydrin)
Graphite	2 mg/m ³ (TWA)	France (OEL)	None.
	1.25 mg/m ³ (respirable dust); 10 mg/m ³ (inhalable) (exposure factor 2) (TWA)	Germany (OEL)	(General dust limit)
	6 mg/m ³ (synthetic, total inhalable dust); 4 mg/m ³ (natural, total inhalable dust); 1 mg/m ³ (natural, respirable dust) (TWA)	Poland (OEL)	None.
	2 mg/m ³ (dust) (TWA)	Spain (OEL)	None.
	10 mg/m ³ (inhalable); 4 mg/m ³ (respirable dust) (TWA)	The United Kingdom (WELs)	None.
p-tert-butylphenyl 1-(2,3-epoxy)propyl ether	None known.	European Union (OEL)	None.

Biological Exposure Indices:

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

Derived No Effect Level (DNEL):

No information available.

Predicted No Effect Concentration (PNEC):

No information available.

8.2 Exposure controls

Ventilation and engineering measures

- : Use only in well-ventilated areas. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. In case of insufficient ventilation wear suitable respiratory equipment.

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- Respiratory protection** : Respirators may be used when engineering and work practice controls are not technically feasible, or when they fail and need to be supplemented. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used. The type of respiratory protection will depend on the conditions of use (see also EN 149).
- Skin protection** : Wear protective gloves. The suitability for a specific workplace should be discussed with the producers of the protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it. Wear sufficient clothing to prevent skin contact.
- Eye / face protection** : Wear eye/face protection. Wear as appropriate: Tightly fitting safety goggles. See also EN 166.
- Other protective equipment** : Ensure that eyewash stations and safety showers are close to the workstation location.
- General hygiene considerations** : Avoid breathing fumes or vapors. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice. Contaminated work clothing should not be allowed out of the workplace.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- Appearance** : Black paste.
- Odour** : slight
- Odour threshold** : No information available.
- pH** : No information available.
- Flash point** : 121.11°C
- Flashpoint (Method)** : Setaflash Closed Tester
- Lower flammable limit (% by vol.)** : No information available.
- Upper flammable limit (% by vol.)** : No information available.
- Flammability (solid, gas)** : Not considered flammable.
- Auto-ignition temperature** : No information available.
- Decomposition temperature** : No information available.
- Oxidizing properties** : None.
- Explosive properties** : Not explosive
- Initial boiling point and boiling range** : No information available.
- Melting/Freezing point** : No information available.
- Relative density** : 1.27
- Solubility in water** : insoluble
- Other solubility(ies)** : No information available.
- Vapour pressure** : < 1 mmHg @ 25°C
- Vapour density** : No information available.
- Partition coefficient: n-octanol/water** : No information available.

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Viscosity : No information available.

Evaporation rate (BuAe = 1)

: No information available.

9.2 Other Information

Volatiles (% by weight) : < 10%

Volatile organic Compounds (VOC's)

: 15.6 g/L

Other physical/chemical comments

: No additional information.

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity : Not normally reactive. Reacts with air to form peroxides. Rate of peroxide formation is not known.

10.2 Chemical stability : Stable under normal conditions. Excessive heating above 50°C / 122°F may degrade the resin component.

10.3 Possibility of hazardous reactions

: Hazardous polymerization does not occur.

10.4 Conditions to avoid : Incompatible products. Do not use in areas without adequate ventilation. Avoid heat and open flame.

10.5 Incompatible materials

: Strong oxidizing agents; Acids; Bases; Amines.

10.6 Hazardous decomposition products

: None known.

In the event of fire the following can be released: Nitrogen oxides (NO_x); Carbon oxides; Aldehydes; Phenol; Sulphur oxides.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological effects:

Acute toxicity : According to the classification criteria of the European Union, this product is not considered as being an acutely toxic chemical.

Skin corrosion/Irritation : This mixture is classified as hazardous in accordance with Regulation (EC) No 1272/2008.
Classification:
Skin corrosion/irritation - Category 2; Causes skin irritation.

Serious eye damage/irritation

: This mixture is classified as hazardous in accordance with Regulation (EC) No 1272/2008.
Classification:
Eye damage/irritation - Category 2. Causes serious eye irritation.

Respiratory or skin sensitisation

: According to the classification criteria of the European Union, this product is not considered as being an allergic respiratory sensitiser. May cause an allergic respiratory reaction (e.g. asthma) in some hypersensitive individuals.

This mixture is classified as hazardous in accordance with Regulation (EC) No 1272/2008.
Classification:

Skin sensitization - Category 1; May cause an allergic skin reaction. May cause severe skin sensitization with allergic contact dermatitis symptoms such as swelling, rash and eczema.

Germ cell mutagenicity : Contains no ingredient listed as a mutagen.

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- Carcinogenicity** : Not classifiable as a human carcinogen.
Contains carbon black. Carbon black is suspected of causing cancer. However, the Carbon black used in this product is in a non-respirable form and under normal conditions of use, Carbon black cannot become airborne. The carcinogenic effects of Carbon black are therefore not applicable to this product.
- Reproductive toxicity** : Contains no ingredient listed as toxic to reproduction.
- STOT-single exposure** : According to the classification criteria of the European Union, this product is not expected to cause target organ toxicity through a single exposure.
- STOT-repeated exposure** : According to the classification criteria of the European Union, this product is not expected to cause target organ toxicity through repeated exposures.
- Aspiration hazard** : According to the classification criteria of the European Union, this product is not considered as being an aspiration hazard to humans.
- Toxicological data** : No data is available on the product itself. See below for individual ingredient acute toxicity data.

<u>Chemical name</u>	<u>LC₅₀ (4hr)</u> <u>inh, rat</u>	<u>LD₅₀</u>	
		<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Epoxy resin (number average molecular weight ≤ 700)	No information available.	11 400 mg/kg	> 23 500 mg/kg
Graphite	> 64.4 mg/L	> 10 000 mg/kg	No information available.
p-tert-butylphenyl 1-(2,3-epoxy)propyl ether	No information available.	> 2000 mg/kg	> 2000 mg/kg
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 2-methylimidazole	No information available.	> 2000 mg/kg	> 2000 mg/kg
Epichlorohydrin Polyglycol Resin Polymer	No information available.	No information available.	No information available.
Carbon black	6750 mg/m ³	> 15 400 mg/kg	> 3000 mg/kg

- Routes of exposure** : Eye contact; Skin contact; Ingestion; Inhalation.
- Effects of acute exposure** : *Inhalation*: If product is heated or mists are formed, inhalation may cause irritation to the nose, throat and respiratory tract. May cause coughing and breathing difficulties.
- Skin contact*: Causes skin irritation. May cause moderate skin irritation. Contact may cause redness, swelling and a painful sensation.
- Eye contact*: Causes serious eye irritation. Symptoms may include stinging, tearing, redness and swelling.
- Ingestion*: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Potential Chronic Health Effects

- : None known or reported by the manufacturer.
- Other important hazards** : None known or reported by the manufacturer.

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SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity : Toxic to aquatic life with long lasting effects. No data is available on the product itself. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters. The product contains the following substances which are hazardous for the environment: Epoxy resin (number average molecular weight \leq 700); p-tert-butylphenyl 1-(2,3-epoxy)propyl ether; Epichlorohydrin Polyglycol Resin Polymer.

See the following tables for individual ingredient ecotoxicity data.

Ecotoxicity data:

<u>Ingredients</u>	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Epoxy resin (number average molecular weight \leq 700)	25068-38-6	2.3 mg/L (Rainbow trout) (ECHA)	No information available.	None.
Graphite	7782-42-5	> 100 mg/L (Zebra fish) (ECHA)	No information available.	None.
p-tert-butylphenyl 1-(2,3-epoxy)propyl ether	3101-60-8	7.5 mg/L (Rainbow trout) (ECHA)	No information available.	None.
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 2-methylimidazole	68002-42-6	> 160 mg/L (Rainbow trout) (ECHA)	No information available.	None.
Epichlorohydrin Polyglycol Resin Polymer	41638-13-5	67 mg/L (Golden orfe) (literature)	No information available.	None.
Carbon black	1333-86-4	> 1000 mg/L (Zebra fish) (OECD)	No information available.	None.

<u>Ingredients</u>	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Epoxy resin (number average molecular weight \leq 700)	25068-38-6	1.1 mg/L (Daphnia magna) (ECHA)	0.3 mg/L (Read-across)	None.
Graphite	7782-42-5	> 100 mg/L (Daphnia magna) (ECHA)	No information available.	None.
p-tert-butylphenyl 1-(2,3-epoxy)propyl ether	3101-60-8	67.9 mg/L (Daphnia magna) (ECHA)	No information available.	None.
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 2-methylimidazole	68002-42-6	> 100 mg/L (Daphnia magna) (ECHA)	No information available.	None.
Epichlorohydrin Polyglycol Resin Polymer	41638-13-5	90 mg/L (Daphnia magna) (literature)	No information available.	None.
Carbon black	1333-86-4	> 5600 mg/L (Daphnia magna) (OECD)	No information available.	None.

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<u>Ingredients</u>	CAS No	<u>Toxicity to Algae</u>		
		<u>EC50 / 96h or 72h</u>	<u>NOEC / 96h or 72h</u>	<u>M Factor</u>
Epoxy resin (number average molecular weight ≤ 700)	25068-38-6	13.81 mg/L/72hr (Green algae) (ECHA)	No information available.	None.
Graphite	7782-42-5	> 100 mg/L/72hr (Green algae) (ECHA)	No information available.	None.
p-tert-butylphenyl 1-(2,3-epoxy)propyl ether	3101-60-8	9 mg/L/72hr (Green algae) (ECHA)	No information available.	None.
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 2-methylimidazole	68002-42-6	> 100 mg/L/72hr (Green algae) (ECHA)	No information available.	None.
Epichlorohydrin Polyglycol Resin Polymer	41638-13-5	No information available.	No information available.	None.
Carbon black	1333-86-4	> 10 000 mg/L/72hr (Green algae) (OECD)	No information available.	None.

12.2 Persistence and degradability

- : The product itself has not been tested.
- Contains the following chemicals which are not readily biodegradable: Epoxy resin (number average molecular weight ≤ 700); p-tert-butylphenyl 1-(2,3-epoxy)propyl ether; Epichlorohydrin Polyglycol Resin Polymer; Graphite; Epoxy-imidazole adduct; Carbon black.

12.3 Bioaccumulation potential

- : The product itself has not been tested. See the following data for ingredient information.

<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Epoxy resin (number average molecular weight ≤ 700) (CAS 25068-38-6)	> 2.195	31 (QSAR)
p-tert-butylphenyl 1-(2,3-epoxy)propyl ether (CAS 3101-60-8)	3.59	No information available.
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 2-methylimidazole (CAS 68002-42-6)	2.37	No information available.
Epichlorohydrin Polyglycol Resin Polymer (CAS 41638-13-5)	- 0.57 (calculated)	No information available.

- ### 12.4 Mobility in soil
- : The product itself has not been tested.

12.5 Results of PBT and vPvB assessment

- : This mixture contains no substance(s) above reportable levels which are considered to be persistent, bioaccumulating nor toxic (PBT), or very persistent and very bioaccumulating (vPvB).

12.6 Other Adverse Environmental effects

- : No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

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SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

- Handling for Disposal** : Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8.
- Methods of Disposal** : Dispose of in accordance with the European Directives on waste and hazardous waste. Waste must be classified and labelled prior to recycling or disposal. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14. TRANSPORTATION INFORMATION

Regulatory Information	14.1 UN Number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing Group	Label
ADR/RID	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. [Epoxy resin; p-tert-butylphenyl 1-(2,3-epoxy)propyl ether]	9	III	
EU ADR/RID Classification Code	M7 - Pollutant to the aquatic environment, solid				
EU ADR / RID Hazard Identification Number	90 - environmentally hazardous substance; miscellaneous dangerous substances				
ADR/RID Additional information	May be shipped as Limited Quantity when transported in containers no larger than 5.0 kg; in packages not exceeding 30 kg gross mass.				
ICAO/IATA	UN3077	Environmentally hazardous substance, solid, n.o.s. (Epoxy resin; p-tert-butylphenyl 1-(2,3-epoxy)propyl ether)	9	III	
ICAO/IATA Additional information	Refer to the appropriate Packing Instruction, prior to shipping this material. Review all State and Operator Variations, prior to shipping this material. When transported in packagings with a net capacity of less than 5 kg of the material, this material is not subject to these regulations, provided certain general packaging provisions are met. Refer to Special Provision A197 for further requirements.				
IMDG	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Epoxy resin; p-tert-butylphenyl 1-(2,3-epoxy)propyl ether)	9	III	
IMDG Additional information	May be shipped as Limited Quantity when transported in containers no larger than 5.0 kg; in packages not exceeding 30 kg gross mass.				

14.5 Environmental hazards : This product meets the criteria for an environmentally hazardous material according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

14.6 Special precautions for user

- : Appropriate advice on safety must accompany the package. Avoid release to the environment.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- : This information is not available.

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SECTION 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- : Classification according to Regulation (EC) No. 1272/2008 on the classification of hazardous substances and mixtures.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended:

None of the components are specifically listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use, as amended:

None of the components are specifically listed.

Directive 2012/18/EU (Seveso III) on the control of major-accident hazards involving dangerous substances:

E2 Hazardous to the Aquatic Environment in Category Chronic 2

Directive 98/24/EC on the protection of the health and safety of workers from risks related to chemical agents at work:

Epoxy resin (number average molecular weight \leq 700) (CAS # 25068-38-6)
p-tert-butylphenyl 1-(2,3-epoxy)propyl ether (CAS # 3101-60-8)
Epichlorohydrin Polyglycol Resin Polymer (CAS # 41638-13-5)
Carbon black (CAS # 1333-86-4)

Directive 94/33/EC on the protection of young people at work:

Epoxy resin (number average molecular weight \leq 700) (CAS # 25068-38-6)
p-tert-butylphenyl 1-(2,3-epoxy)propyl ether (CAS # 3101-60-8)
Epichlorohydrin Polyglycol Resin Polymer (CAS # 41638-13-5)
Carbon black (CAS # 1333-86-4)

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006, as amended [including Regulation (EU) 2015/830].

Follow national regulation for work with chemical agents.

German legislation on substances that are hazardous to water AwSV: Water hazard class (Germany) - 2 (self classified)

15.2 Chemical safety assessment

- : A chemical safety assessment has not been carried out by the Manufacturer of this product.

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SECTION 16. OTHER INFORMATION

- Legend** : ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS: Chemical Abstract Services
CLP: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
EC: European Community
EC50: Effective Concentration 50%
ECHA: European Chemicals Agency
EN: European Standard
EU: European Union
HSDB: Hazardous Substances Data Bank
IATA: International Air Transport Association
IBC: Intermediate Bulk Container
ICAO: International Civil Aviation Organisation
IMDG: International Maritime Dangerous Goods
Inh: Inhalation
LC: Lethal Concentration
LD: Lethal Dose
NOEC: No observable effect concentration
OECD: Organisation for Economic Co-operation and Development
OEL: National occupational exposure limits
QSAR: Quantitative structure-activity relationship
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
RTECS: Registry of Toxic Effects of Chemical Substances
SDS: Safety Data Sheet
STEL: Short Term Exposure Limit
TWA: Time Weighted Average
WEL: Workplace Exposure Limit
- Information Source** : 1. Material Safety Data Sheet from manufacturer.
2. Canadian Centre for Occupational Health and Safety, CCIInfoWeb Databases, 2018 (Chempendium, RTECs, HSDB, INCHEM).
3. European Chemicals Agency, Classification Legislation, 2018.
4. OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2018.
- Preparation Date (dd/mm/yyyy)** : 14/03/2014
- Reviewed Date SDS (dd/mm/yyyy)** : 12/10/2018
- Revision No.** : 2
- Revision Information** : (M)SDS sections updated:
2. HAZARDS IDENTIFICATION;
3. COMPOSITION/INFORMATION ON INGREDIENTS;
4. FIRST AID MEASURES;
8. EXPOSURE CONTROLS / PERSONAL PROTECTION;
12. ECOLOGICAL INFORMATION;
14. TRANSPORT INFORMATION;
15. REGULATORY INFORMATION
- H-Phrases (Full text)** : H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H351 - Suspected of causing cancer <state route of exposure if it is conclusively proven that no other routs of exposure cause the hazard>.
H370 - Causes damage to organs (a,b,c).
H411 - Toxic to aquatic life with long lasting effects.
H412 - Harmful to aquatic life with long lasting effects.

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Other special considerations for handling

: Provide adequate information, instruction and training for operators.

<p><u>Prepared for:</u> Midwest Thermal Spray 23164 Commerce Drive Michigan, U.S.A. 48335 Telephone: +1 (248) 442-6540 Website: www.midwestthermal.com Please direct all enquiries to Midwest Thermal Spray.</p>	
<p><u>Prepared by:</u> ICC The Compliance Center Inc. http://www.thecompliancecenter.com</p>	

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END OF DOCUMENT