International branch of ToxInfo

Date of revision: 27. 04. 2016 Version: 2

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

1.1. <u>Product identifier:</u>

GID Maple Epoxy Kit

Alternate Names:

Product Identity: 61-860073-999 GID Maple Epoxy Kit

Alternate Names Contains: 61-860073-999A1 Lt. Brown Maple Epoxy Resin (7/8 FL OZ), 61-860073-

999A Dk. Brown Maple Epoxy Resin (7/8 FL OZ), 61-860073-999B Epoxy Hardner

(3/4 FL OZ)

1.2. Relevant identified uses of the substance and uses advised against:

Epoxy constituents, restricted for professional use.

1.3. <u>Details of the supplier of the safety data sheet:</u>

Brunswick Bowling Products, LLC

525 W. Laketon Ave. Muskegon, MI 49441. USA

1.3.1. Responsible person:

E-mail: <u>brunswick.hu@brunswickbowling.com</u>

1.4. <u>Emergency telephone number:</u> 24-hour Emergency Telephone No.: CHEMTEL +1 813-248-0585

Customer Service: Brunswick Bowling Products, LLC: 231-725-4966

Please see attached Safety Data Sheets for the kit components

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SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY/UNDERTAKING

1.2. <u>Product identifier:</u>

Light Brown Epoxy Gid Repair Resin Brunswick

Alternate Names:

Product Part Number

81-9022 61-860073-999A1

1.2. Relevant identified uses of the mixture and uses advised against:

Epoxy constituent restricted for professional use.

1.3. Details of the supplier of the safety data sheet:

Brunswick Bowling Products, LLC

525 W. Laketon Ave. Muskegon, MI 49441. USA

1.3.1. Responsible person:

E-mail: <u>brunswick.hu@brunswickbowling.com</u>

1.4. Emergency telephone number: 24-hour Emergency Telephone No.: CHEMTEL +1 813-248-0585

Customer Service: Brunswick Bowling Products, LLC: 231-725-4966

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the mixture:

Classification according to Regulation 1272/2008/EC (CLP):

Skin Irritation 2 - H315 Skin Sensitisation 1 - H317 Eye Irritation 2- H319 Aquatic Chronic 2 - H411

Warning H 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.

2.2. Label elements:

Components which define the hazards:

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight \leq 700); Epoxi resin liquid; (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate; Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.



Warning H 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.



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Precautionary P statements:

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 – Wash hands thoroughly after handling.

P272 - Contaminated work clothing should not be allowed out of the workplace.

P273 - Avoid release to the environment.

P280 - Wear protective gloves/eye protection/face protection.

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P313 - Get medical advice/ attention.

P321 - Specific treatment (see information on this label).

P333 + P313 - If skin irritation or rash occurs: Get medical advice/ attention.

P337 + P313 - If eye irritation persists: Get medical advice/attention.

P362 – Take off contaminated clothing.

P363 – Wash contaminated clothing before reuse.

P391 – Collect spillage.

P501 – Dispose of contents/container in accordance with local/national regulations.

2.3. Other hazards:

The product has no other known specific hazards for human or environment.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. <u>Substance</u>

Not applicable.

3.2. <u>Mixture:</u>

Description	CAS number	EC number	REACH	Conc.	Classification: 1272/2008/EC (CLP)		
Description	CAS number	EC number	reg. nr.	(%)	Hazard pict.	Hazard cat.	H phrase
Reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	25068-38-6	500-033-5	-	50-75	GHS07 GHS09 Warning	Eye Irrit. 2 Skin Irrit. 2 Skin Sens. 1 Aquatic Chronic 2	H319 H315 H317 H411
Epoxi resin liquid*	25085-99-8	-	-	25-50	GHS07 GHS09 Warning	Skin irrit. 2 Skin Sens. 1 Eye irrit. 2 Aquatic Chronic 2	H315 H317 H319 H411
(1-methyl-1,2- ethanediyl)bis[oxy(meth yl- 2,1-ethanediyl)] diacrylate	42978-66-5	256-032-2	-	5-10	GHS07 GHS09 Warning	Eye Irrit. 2 STOT SE 3 Skin Irrit. 2 Skin Sens. 1 Aquatic Chronic 2	H319 H335 H315 H317 H411
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	68609-97-2	271-846-8	-	0,10-1,0	GHS07 Warning	Skin Irrit. 2 Skin Sens. 1	H315 H317

^{*:} Substance classified by the manufacturer or substance which has no obligatory classification according to the EU regulations

For the full text of H phrases: see Section 16.

^[1] Substance classified with a health or environmental hazard.

^[2] Substance with a workplace exposure limit.

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SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

General:

NOTES TO PHYSICIAN: Treat symptomatically. No artificial respiration, mouth-to-mouth or mouth to nose. Use suitable instruments/apparatus. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Treat symptomatically. Effects of contact or inhalation may be delayed. Keep warm and in a quiet place. Additional information is given in the SDS.

IN CASE OF INGESTION:

Measures:

If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

IN CASE OF INHALATION:

Measures:

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

IN CASE OF SKIN CONTACT:

Measures:

Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin

IN CASE OF EYE CONTACT:

Measures:

Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical

4.2. Most important symptoms and effects, both acute and delayed:

Overview:

Pre-existing medical conditions aggravated by exposure may include disorders of the skin, respiratory and central nervous system.

EFFECTS: May irritate skin and cause redness and pain. Respiratory track irritation. See section 2 for further details.

Eves:

Causes serious eye irritation.

May cause an allergic skin reaction. Causes skin irritation.

4.3. Indication of any immediate medical attention and special treatment needed:

Notes to Physician:

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with frothy sputum and high pulse pressure. Treat symptomatically. See section 2 for further details.

SECTION 5: FIRE-FIGHTING MEASURES

- 5.1. Extinguishing media:
- 5.1.1. Suitable extinguishing media:

Water spray. Carbon dioxide. Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.1.2. Unsuitable extinguishing media:

No data available.

5.2. Special hazards arising from the substance or mixture:

PERSONAL PRECAUTIONS: Avoid substance contact. Do not inhale vapors. Ensure fresh air supply in enclosed areas. PROTECTIVE EQUIPMENT: Safety glasses with side shield, protective gloves and chemical resistant gloves/gauntlets, boots and apron (where rick of splashing).

EMERGENCY PRECAUTIONS: Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers. Wear personal protective equipment. Avoid contact with skin, eyes and clothing.

Hazardous decomposition: Hydrogen Sulfide

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

Collect the resulting residue containing solution.

Place in a metal container approved for transportation by appropriate authorities.

Dispose of collected material as soon as possible.

Avoid breathing dust / fume / gas / mist / vapors / spray.

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5.3. Advise for fire fighters:

Keep away from sources of ignition. Prevent fire-fighting water from entering surface water or groundwater. Cool container with spray water from a safe distance. Never use welding or cutting torch on or near container (even empty) because product may ignite explosively.

COMBUSTION PRODUCTS: Vapors heavier than air. Development of hazardous combustion gases or vapors possible in the event of fire.

Use self-contained breathing apparatus, use water for cooling container to prevent pressure build up, auto-ignition or explosion. Avoid spreading burning liquid with water.

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel:

Keep unprotected people away, allow only well trained experts wearing suitable protective clothing to abide in the field of accident.

6.1.2. For emergency responders:

Put on appropriate personal protective equipment (see section 8).

PERSONAL PRECAUTIONS: Avoid substance contact. Do not inhale vapors. Ensure fresh air supply in enclosed areas.

PROTECTIVE EQUIPMENT: Safety glasses with side shield, protective gloves and chemical resistant gloves/gauntlets, boots and apron (where rick of splashing).

EMERGENCY PRECAUTIONS: Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers. Wear personal protective equipment. Avoid contact with skin, eyes and clothing.

6.2. <u>Environmental precautions:</u>

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. <u>Methods and material for containment and cleaning up:</u>

PERSONAL PRECAUTIONS: Avoid substance contact. Do not inhale vapors. Ensure fresh air supply in enclosed areas. PROTECTIVE EQUIPMENT: Safety glasses with side shield, protective gloves and chemical resistant gloves/gauntlets, boots and apron (where rick of splashing).

EMERGENCY PRECAUTIONS: Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers. Wear personal protective equipment. Avoid contact with skin, eyes and clothing.

Pick up and transfer to properly labeled containers.

SMALL SPILL: Use personal protective equipment. Ensure adequate ventilation. Keep people away from and upwind of spill/leak.

LARGE SPILL: Eliminate all ignition sources. Prevent spreading over a wide area (e.g. by the use of burms or dikes created with absorbent material.) Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained. Consideration should be given to contacting specialized vendors to assist in mitigating the spill.

6.4. <u>Reference to other sections:</u>

For further and detailed information see section 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. <u>Precautions for safe handling:</u>

Observe conventional hygiene precautions.

Handle in accordance with good industrial hygiene and safety practice.

See section 2 for further details. - [Prevention]:

Technical measures:

No special measures required.

Precautions against fire and explosion:

No special measures required.

7.2. <u>Conditions for safe storage, including any incompatibilities:</u>

Technical measures and storage condition:

Handle containers carefully to prevent damage and spillage.

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Keep away from open flames, hot surfaces and sources of ignition. Keep container tightly closed in a dry and will ventilated place. Keep at a temperature between 0 to 50 degrees Celsius. Store in well-ventilated area between 4 degrees C and 38 degrees C. Store away from heat and sources of ignition. ECI takes no responsibility for determining what measures are required for personal protection in any specific application. The general information given should be used with discretion.

Incompatible materials: Strong acids, strong bases. Amines and mercaptains may initiate possible hazardous polymerization.

Packaging material: no special measures.

7.3. Specific end use(s):

No specific instructions available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. <u>Control parameters:</u>

Occupational exposure limit values:

The components of the mixture are not regulated with exposure limit value.

DNEL		Routes of exposure	Exposure frequency:	Remarks:	
Worker	Consumer				
no data	no data	Dermal	Short term (acute)	no data available	
available	available		Long term (repeated)		
no data	no data	Inhalative	Short term (acute)	no data available	
available	available		Long term (repeated)		
no data	no data	Oral	Short term (acute)	no data available	
available	available		Long term (repeated)		

PNEC			Exposure frequency:	Remarks:
Water	Soil	Air		
no data available	no data available	no data available	Short term (single use) Long term (continuous)	no data available
no data available	no data available	no data available	Short term (single use) Long term (continuous)	no data available
no data available	no data available	no data available	Short term (single use) Long term (continuous)	no data available

8.2. <u>Exposure controls:</u>

In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

8.2.1 Appropriate engineering controls:

In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin.

Engineering Controls:

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices:

Eye bath and safety shower, uniforms or aprons may be used to avoid excessive contact. Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

8.2.2. Individual protection measures, such as personal protective equipment:

- 1. Eye/face protection: Safety glasses with side shields.
- 2. Skin protection:
 - a. Hand protection: Polyvinyl acetate/protective gloves.
 - b. Other: Body Protection: Chemical resistant gloves/gauntlets, boots, and apron (where risk of splashing).
- 3. Respiratory protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
- 4. Thermal hazard: none known.

8.2.3. Environmental exposure controls:

No specific prescription.

The requirements detailed in Section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions an expert's advice should be sought out before deciding upon further protective measures.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. <u>Information on basic physical and chemical properties:</u>

Parameter Test method: Remarks: 1. Appearance: light brown liquid 2. Odour: Hydrocarbon 3. Odour threshold: not determined 4. pH value: not applicable 5. Melting point/ freezing point: not applicable 6. Initial boiling point/boiling range: 215.55 °C 254.40 PMCC 7. Flash point: 8. Evaporation rate: No applicable information was found. 9. Flammability: not applicable 10. Upper/lower flammability or explosive No applicable limits: information was found 11. Vapour pressure: No applicable information was found 12 Vapour density: No applicable information was found 13. Relative density: 1.1962 solubility in water: 14. Solubility(ies): immiscible 15. Partition coefficient: n-octanol/water (Log not measured 16. Self-ignition temperature: No applicable information was found 17. Degradation temperature: No applicable information was found 18. Viscosity: No applicable information was found

19. Explosive properties:

20. Oxidizing properties:

9.2. Other information:
No data available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

Hazardous polymerization may occur if product is not handled as per instructions.

10.2. <u>Chemical stability:</u>

This product requires another product to react at room temperature. Mix and use product in accordance with directions for safety. Excessive heat and fume generation can occur if improperly handled. Not sensitive to mechanical impact.

not measured

not measured

10.3. <u>Possibility of hazardous reactions:</u>

No data available.

10.4. <u>Conditions to avoid:</u>

No data available.

10.5. <u>Incompatible materials:</u>

Strong acids, strong bases. Amines and mercaptains may initiate possible hazardous polymerization.

10.6. Hazardous decomposition products:

Hydrogen Sulfide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. <u>Information on toxicological effects:</u>

Acute toxicity: Based on the properties of the epoxy constituents and considering toxicological data on similar preparations this preparation may be an irritant and a skin and respiratory sensitizer. Low molecular weight epoxy constituents are irritating to eyes, mucous membranes and skin. Repeated skin contact may lead to irritation and sensitization, possibly with cross-sensitization to other epoxies. Skin contact with the preparation and exposure to spray mist and vapor should be avoided.

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Causes serious eye irritation.

Respiratory or skin sensitisation: May cause an allergic skin reaction.

Germ cell mutagenicity: none known.

Carcinogenicity: none known.

Reproductive toxicity: none known.

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STOT-single exposure: none known. STOT-repeated exposure: none known. Aspiration hazard: none known.

11.1.1. For substances subject to registration, brief summaries of the information derived from the test conducted:

No data available.

11.1.2. Relevant toxicological properties of the hazardous substances:

Information about the components:

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Diglycidyl ether of bisphenol A - (25068-38-6)	> 5,000.00, Rat - Category: NA	20,000.00, Rabbit - Category: NA	No data available	No data available	No data available
EPOXY RESIN LIQUID - (25085-99-8)	No data available	No data available	No data available	No data available	No data available
TRIPROPYLENE GLYCOL DIACRILATE - (42978-66-5)	3,000.00, Rat - Category: 5	2,000.00, Rabbit - Category: 4	No data available	No data available	No data available
Alkyl(C12-C14)glycidyl ether - (68609- 97-2)	No data available	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Carcinogen data:

CAS No.	Ingredient	Source	Value
0025068-38-6	0025068-38-6 Diglycidyl ether of bisphenol A	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0025085-99-8	EPOXY RESIN	OSHA	Select Carcinogen: No
	LIQUID	NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0042978-66-5	TRIPROPYLENE	OSHA	Select Carcinogen: No
	GLYCOL DIACRILATE		Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0068609-97-2	Alkyl(C12-	OSHA	Select Carcinogen: No
	C14)glycidyl ether	NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

- 11.1.3. Information on likely routes of exposure:
 - Ingestion, inhalation, skin contact, eye contact.
- 11.1.4. Symptoms related to the physical, chemical and toxicological characteristics:

No data available.

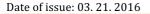
11.1.5. Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

- 11.1.6. Interactive effects:
 - No data available.
- 11.1.7. Absence of specific data:
 - No information.
- 11.1.8. Other information:



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No data available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. <u>Toxicity:</u>

Toxic to aquatic life with long lasting effects.

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Diglycidyl ether of bisphenol A - (25068-38-6)	3.10, Pimephales promelas	1.40, Daphnia magna	Not Available
EPOXY RESIN LIQUID - (25085-99-8)	Not Available	Not Available	Not Available
TRIPROPYLENE GLYCOL DIACRILATE - (42978-66-5)	4.50, Leuciscus idus	88.70, Daphnia magna	28.00 (72 hr), Scenedesmus subspicatus
Alkyl(C12-C14)glycidyl ether - (68609- 97-2)	Not Available	Not Available	Not Available

12.2. <u>Persistence and degradability:</u>

There is no data available on the preparation itself.

12.3. <u>Bioaccumulation potential:</u>

Not measured.

12.4. Mobility in soil:

No data available.

12.5. Results of PBT and vPvB assessment:

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects:

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. <u>Waste treatment methods:</u>

Disposal according to the local regulations.

 $13.1.1. \quad Information \ regarding \ the \ disposal \ of \ the \ product:$

No special recommendation from the manufacturer.

European Waste Code:

For this product no waste disposal key according the European Waste Catalogue (EWC) can be determined, as only the purpose of application defined by the user enables an allocation. The European waste code number has to be determined after a discussion with a specialist dealing with waste disposal.

- 13.1.2. Information regarding the disposal of the packaging:
 - Dispose according to the relevant regulations.
- 13.1.3. Physical/chemical properties that may affect waste treatment options shall be specified:

None known.

13.1.4. Sewage disposal:

None known.

13.1.5. Special precautions for any recommended waste treatment:

No data available.

SECTION 14: TRANSPORT INFORMATION

14.1. <u>UN Number:</u>

UN3082

14.2. <u>UN proper shipping name:</u>

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S

14.3. <u>Transport hazard class(es):</u>

M6

14.4. <u>Packaging group:</u>

III

14.5. Environmental hazard:

Marine Pollutant: yes

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14.6. Special precautions for user:

No relevant information available.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code:

Not applicable.

14.8. Other:

Marine Pollutant: Yes; (Diglycidyl ether of bisphenol A) Note: Per IMDG 2.10.2.7, IATA Special Provision A197, and 49 CFR 171.4(c)(2) not subject to marine pollutant provisions when inner containers of combination packaging less than 5 L (liquids) or 5 kg (solids).

SECTION 15: REGULATORY INFORMATION

15.1. <u>Safety, health and environmental regulations/legislation specific for the substance or mixture:</u>

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents

15.2. <u>Chemical safety assessment:</u> no information available.

SECTION 16: OTHER INFORMATION

Information regarding the revision of the safety data sheet:

The safety data sheet has been revised according to Regulation (EU) 2015/830 (Section 1-16).

The classification of the components and the mixture have been amended according to Regulation 1272/2008/EC (CLP) and its amendments.

Full text of the abbreviations in the safety data sheet:

DNEL: Derived no effect level. PNEC: Predicted no effect concentration. CMR effects: carcinogenity, mutagenicity and toxicity for reproduction. PBT: Persistent, bioaccumulative and toxic. vPvB: Very Persistent, Very Bioaccumulative. n.d.: not defined. n.a.: not applicable.

Data sources: safety data sheet (03/21/2016) issued by the manufacturer.

Methods used for the classification according to Regulation 1272/2008/EC:

	, , , ,
Skin Irritation 2 - H315	Based on calculation method
Skin Sensitisation 1 – H317	Based on calculation method
Eye Irritation 2- H319	Based on calculation method
Aquatic Chronic 2 – H411	Based on calculation method

Relevant H-Phrases (number and full text) of Section 2 and 3:

H315 - Causes skin irritation.

H317 – May cause an allergic skin reaction.

H319 – Causes serious eye irritation.

H335 – May cause respiratory irritation.

H411 - Toxic to aquatic life with long lasting effects.

Training advice: no data available.

This safety data sheet had been prepared on the basis of information provided by the manufacturer/supplier and conform to the relevant regulations.

The information, data and recommendations contained herein are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date issued; however, no representation is made as to the comprehensiveness of the information. The SDS shall be used only as a guide for handling the product; in the course of handling and using the product other considerations may arise or be required.

Users are cautioned to determine the appropriateness and applicability of the above information to their particular circumstances and purposes and assume all risk associated with the use of this product. It is the responsibility of the user to fully comply with local, national and international regulations concerning the use of this product.

EUROPE International branch of ToxInfo

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Safety data sheet was prepared by: ToxInfo Kft.

Professional help regarding the explanation of the safety data sheet: +36 70 335 8480; $\underline{info@msds-europe.com}$

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SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY/UNDERTAKING

1.3. <u>Product identifier:</u>

Dark Brown Epoxy Gid Repair Resin Brunswick

Alternate Names:

Product Part Number

81-9013 61-860073-999A

1.2. Relevant identified uses of the mixture and uses advised against:

Epoxy constituent restricted for professional use.

1.3. Details of the supplier of the safety data sheet:

Brunswick Bowling Products, LLC

525 W. Laketon Ave. Muskegon, MI 49441. USA

1.3.1. Responsible person:

E-mail: <u>brunswick.hu@brunswickbowling.com</u>

1.4. Emergency telephone number:

24-hour Emergency Telephone No.: CHEMTEL +1 813-248-0585 Customer Service: Brunswick Bowling Products, LLC: 231-725-4966

SECTION 2: HAZARDS IDENTIFICATION

2.1. <u>Classification of the mixture:</u>

Classification according to Regulation 1272/2008/EC (CLP):

Skin Irritation 2 - H315 Skin Sensitisation 1 - H317 Eye Irritation 2- H319 Aquatic Chronic 2 - H411

Warning H 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.

2.2. <u>Label elements:</u>

Components which define the hazards:

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700); Epoxi resin liquid; (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate; Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.



Warning H 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 **P statements:**

P261 - Avoid breathing dust/ fume/gas/mist/ vapours/spray.

P264 - Wash hands thoroughly after handling.

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P272 - Contaminated work clothing should not be allowed out of the workplace.

P273 - Avoid release to the environment.

P280 – Wear protective gloves/eye protection/face protection.

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P313 - Get medical advice/ attention.

P321 - Specific treatment (see information on this label).

P333 + P313 - If skin irritation or rash occurs: Get medical advice/ attention.

P337 + P313 - If eye irritation persists: Get medical advice/attention.

P362 - Take off contaminated clothing.

P363 - Wash contaminated clothing before reuse.

P391 - Collect spillage.

P501 – Dispose of contents/container in accordance with local/national regulations.

2.3. Other hazards:

The product has no other known specific hazards for human or environment.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable.

3.2. <u>Mixture:</u>

Description	CAS	EC number REACH		Conc.	Classification: 1272/2008/EC (CLP)		
Description	CAS number	EC number	reg. nr.	(%)	Hazard pict.	Hazard cat.	H phrase
Reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	25068-38-6	500-033-5	-	50-75	GHS07 GHS09 Warning	Eye Irrit. 2 Skin Irrit. 2 Skin Sens. 1 Aquatic Chronic 2	H319 H315 H317 H411
Epoxi resin liquid*	25085-99-8	ı	-	25-50	GHS07 GHS09 Warning	Skin irrit. 2 Skin Sens. 1 Eye irrit. 2 Aquatic Chronic 2	H315 H317 H319 H411
(1-methyl-1,2- ethanediyl) bis [oxy(methyl- 2,1-ethanediyl)] diacrylate	42978-66-5	256-032-2	-	5-10	GHS07 GHS09 Warning	Eye Irrit. 2 STOT SE 3 Skin Irrit. 2 Skin Sens. 1 Aquatic Chronic 2	H319 H335 H315 H317 H411
oxirane, mono [(C12-14-alkyloxy) methyl] derivs.	68609-97-2	271-846-8	-	0,10-1,0	GHS07 Warning	Skin Irrit. 2 Skin Sens. 1	H315 H317

^{*:} Substance classified by the manufacturer or substance which has no obligatory classification according to the EU regulations.

For the full text of H phrases: see Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

General:

NOTES TO PHYSICIAN: Treat symptomatically. No artificial respiration, mouth-to-mouth or mouth to nose. Use suitable instruments/apparatus. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

^[1] Substance classified with a health or environmental hazard.

^[2] Substance with a workplace exposure limit.



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Treat symptomatically. Effects of contact or inhalation may be delayed. Keep warm and in a quiet place. Additional information is given in the SDS.

IN CASE OF INGESTION:

Measures:

If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

IN CASE OF INHALATION:

Measures:

- Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

IN CASE OF SKIN CONTACT:

Measures:

- Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

IN CASE OF EYE CONTACT:

Measures:

 Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

4.2. <u>Most important symptoms and effects, both acute and delayed:</u>

Overview:

Pre-existing medical conditions aggravated by exposure may include disorders of the skin, respiratory and central nervous system.

EFFECTS: May irritate skin and cause redness and pain. Respiratory track irritation. See section 2 for further details.

Eyes:

Causes serious eye irritation.

Skin:

May cause an allergic skin reaction. Causes skin irritation.

4.3. <u>Indication of any immediate medical attention and special treatment needed:</u>

Notes to Physician:

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with frothy sputum and high pulse pressure. Treat symptomatically. See section 2 for further details.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media:

5.1.1. Suitable extinguishing media:

Water spray. Carbon dioxide. Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.1.2. Unsuitable extinguishing media:

No data available.

5.2. Special hazards arising from the substance or mixture:

PERSONAL PRECAUTIONS: Avoid substance contact. Do not inhale vapors. Ensure fresh air supply in enclosed areas. PROTECTIVE EQUIPMENT: Safety glasses with side shield, protective gloves and chemical resistant gloves/gauntlets, boots and apron (where rick of splashing).

EMERGENCY PRECAUTIONS: Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers. Wear personal protective equipment. Avoid contact with skin, eyes and clothing.

Hazardous decomposition: Hydrogen Sulfide

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

Collect the resulting residue containing solution.

Place in a metal container approved for transportation by appropriate authorities.

Dispose of collected material as soon as possible.

Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advise for fire fighters:

Keep away from sources of ignition. Prevent fire-fighting water from entering surface water or groundwater. Cool container with spray water from a safe distance. Never use welding or cutting torch on or near container (even empty) because product may ignite explosively.

COMBUSTION PRODUCTS: Vapors heavier than air. Development of hazardous combustion gases or vapors possible in the event of fire.

Use self-contained breathing apparatus, use water for cooling container to prevent pressure build up, auto-ignition or explosion. Avoid spreading burning liquid with water.

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full

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protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. <u>Personal precautions, protective equipment and emergency procedures:</u>

6.1.1 For non-emergency personnel:

Keep unprotected people away, allow only well trained experts wearing suitable protective clothing to abide in the field of accident.

6.1.2. For emergency responders:

Put on appropriate personal protective equipment (see section 8).

PERSONAL PRECAUTIONS: Avoid substance contact. Do not inhale vapors. Ensure fresh air supply in enclosed areas.

PROTECTIVE EQUIPMENT: Safety glasses with side shield, protective gloves and chemical resistant gloves/gauntlets, boots and apron (where rick of splashing).

EMERGENCY PRECAUTIONS: Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers. Wear personal protective equipment. Avoid contact with skin, eyes and clothing.

6.2. <u>Environmental precautions:</u>

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. <u>Methods and material for containment and cleaning up:</u>

PERSONAL PRECAUTIONS: Avoid substance contact. Do not inhale vapors. Ensure fresh air supply in enclosed areas. PROTECTIVE EQUIPMENT: Safety glasses with side shield, protective gloves and chemical resistant gloves/gauntlets, boots and apron (where rick of splashing).

EMERGENCY PRECAUTIONS: Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers. Wear personal protective equipment. Avoid contact with skin, eyes and clothing.

Pick up and transfer to properly labeled containers.

SMALL SPILL: Use personal protective equipment. Ensure adequate ventilation. Keep people away from and upwind of spill/leak.

LARGE SPILL: Eliminate all ignition sources. Prevent spreading over a wide area (e.g. by the use of burms or dikes created with absorbent material.) Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained. Consideration should be given to contacting specialized vendors to assist in mitigating the spill.

6.4. <u>Reference to other sections:</u>

For further and detailed information see section 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. <u>Precautions for safe handling:</u>

Observe conventional hygiene precautions.

Handle in accordance with good industrial hygiene and safety practice.

See section 2 for further details. - [Prevention]:

Technical measures:

No special measures required.

Precautions against fire and explosion:

No special measures required.

7.2. <u>Conditions for safe storage, including any incompatibilities:</u>

Technical measures and storage condition:

Handle containers carefully to prevent damage and spillage.

Keep away from open flames, hot surfaces and sources of ignition. Keep container tightly closed in a dry and will ventilated place. Keep at a temperature between 0 to 50 degrees Celsius. Store in well-ventilated area between 4 degrees C and 38 degrees C. Store away from heat and sources of ignition. ECI takes no responsibility for determining what measures are required for personal protection in any specific application. The general information given should be used with discretion.

Incompatible materials: Strong acids, strong bases. Amines and mercaptains may initiate possible hazardous polymerization.

Packaging material: no special measures.

7.3. Specific end use(s):

No specific instructions available.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Occupational exposure limit values:

The components of the mixture are not regulated with exposure limit value.

DNEL		Routes of exposure	Exposure frequency:	Remarks:	
Worker	Consumer	_			
no data	no data	Dermal	Short term (acute)	no data available	
available	available		Long term (repeated)		
no data	no data	Inhalative	Short term (acute)	no data available	
available	available		Long term (repeated)		
no data	no data	Oral	Short term (acute)	no data available	
available	available		Long term (repeated)		

PNEC			Exposure frequency:	Remarks:
Water	Soil	Air		
no data	no data	no data	Short term (single use)	no data available
available	available	available	Long term (continuous)	
no data	no data	no data	Short term (single use)	no data available
available	available	available	Long term (continuous)	
no data	no data	no data	Short term (single use)	no data available
available	available	available	Long term (continuous)	

8.2. <u>Exposure controls:</u>

In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

8.2.1 Appropriate engineering controls:

In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin.

Engineering Controls:

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices:

Eye bath and safety shower, uniforms or aprons may be used to avoid excessive contact. Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

- 8.2.2. Individual protection measures, such as personal protective equipment:
 - 5. Eye/face protection: Safety glasses with side shields.
 - 6. Skin protection:
 - c. Hand protection: Polyvinyl acetate/protective gloves.
 - d. Other: Body Protection: Chemical resistant gloves/gauntlets, boots, and apron (where risk of splashing).
 - 7. Respiratory protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
 - 8. Thermal hazard: none known.
- 8.2.3. Environmental exposure controls:

No specific prescription.

The requirements detailed in Section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions an expert's advice should be sought out before deciding upon further protective measures.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties:

Parameter Test method: Remarks:

Appearance: Dark brown, thick consistency liquid
 Odour: Hydrocarbon
 Odour threshold: not determined
 pH value: not applicable

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5. Melting point/ freezing point: not applicable 215.55 °C 6. Initial boiling point/boiling range: 254.40 PMCC 7. Flash point: 8. Evaporation rate: No applicable information was found. 9. Flammability: not applicable 10. Upper/lower flammability or explosive No applicable limits information was found 11. Vapour pressure: No applicable

information was found 12 Vapour density:

No applicable

information was

found 1.1701

13. Relative density: 14. Solubility(ies): solubility in water:

immiscible not measured

15. Partition coefficient: n-octanol/water (Log

No applicable 16. Self-ignition temperature:

information was found

No applicable information was found

No applicable 18. Viscosity:

information was found

19. Explosive properties: not measured 20. Oxidizing properties: not measured

9.2. Other information: No data available.

SECTION 10: STABILITY AND REACTIVITY

17. Degradation temperature:

10.1. Reactivity:

Hazardous polymerization may occur if product is not handled as per instructions.

10.2. Chemical stability:

> This product requires another product to react at room temperature. Mix and use product in accordance with directions for safety. Excessive heat and fume generation can occur if improperly handled. Not sensitive to mechanical impact.

Possibility of hazardous reactions: 10.3.

No data available.

10.4. Conditions to avoid:

No data available.

10.5. **Incompatible materials:**

Strong acids, strong bases. Amines and mercaptains may initiate possible hazardous polymerization.

Hazardous decomposition products: 10.6.

Hydrogen Sulfide.

SECTION 11: TOXICOLOGICAL INFORMATION

<u>Information on toxicological effects:</u> 11.1.

Acute toxicity: Based on the properties of the epoxy constituents and considering toxicological data on similar preparations this preparation may be an irritant and a skin and respiratory sensitizer. Low molecular weight epoxy constituents are irritating to eyes, mucous membranes and skin. Repeated skin contact may lead to irritation and sensitization, possibly with cross-sensitization to other epoxies. Skin contact with the preparation and exposure to spray mist and vapor should be avoided.

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Causes serious eye irritation.

Respiratory or skin sensitisation: May cause an allergic skin reaction.

Germ cell mutagenicity: none known.

Carcinogenicity: none known. Reproductive toxicity: none known. STOT-single exposure: none known.

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STOT-repeated exposure: none known.

Aspiration hazard: none known.

 $11.1.1. \quad \text{For substances subject to registration, brief summaries of the information derived from the test conducted:} \\$

No data available.

11.1.2. Relevant toxicological properties of the hazardous substances:

Information about the components:

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Diglycidyl ether of bisphenol A - (25068-38-6)	> 5,000.00, Rat - Category: NA	20,000.00, Rabbit - Category: NA	No data available	No data available	No data available
EPOXY RESIN LIQUID - (25085-99-8)	No data available	No data available	No data available	No data available	No data available
TRIPROPYLENE GLYCOL DIACRILATE - (42978-66-5)	3,000.00, Rat - Category: 5	2,000.00, Rabbit - Category: 4	No data available	No data available	No data available
Alkyl(C12-C14)glycidyl ether - (68609- 97-2)	No data available	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Carcinogen data:

CAS No.	Ingredient	Source	Value
0025068-38-6	Diglycidyl ether of	OSHA	Select Carcinogen: No
	bisphenol A	NTP	Known: No; Suspected: No
			Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0025085-99-8	EPOXY RESIN LIQUID	OSHA	Select Carcinogen: No
			Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0042978-66-5	78-66-5 TRIPROPYLENE		Select Carcinogen: No
	GLYCOL DIACRILATE	NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0068609-97-2	Alkyl (C12-	OSHA	Select Carcinogen: No
	C14)glycidyl ether	NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

- 11.1.3. Information on likely routes of exposure:
 - Ingestion, inhalation, skin contact, eye contact.
- 11.1.4. Symptoms related to the physical, chemical and toxicological characteristics:

No data available.

11.1.5. Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

- 11.1.6. Interactive effects:
 - No data available.
- 11.1.7. Absence of specific data:

 $No\ information.$

11.1.8. Other information:

No data available.



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SECTION 12: ECOLOGICAL INFORMATION

12.1. <u>Toxicity:</u>

Toxic to aquatic life with long lasting effects.

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Diglycidyl ether of bisphenol A - (25068-38-6)	3.10, Pimephales promelas	1.40, Daphnia magna	Not Available
EPOXY RESIN LIQUID - (25085-99-8)	Not Available	Not Available	Not Available
TRIPROPYLENE GLYCOL DIACRILATE - (42978-66-5)	4.50, Leuciscus idus	88.70, Daphnia magna	28.00 (72 hr), Scenedesmus subspicatus
Alkyl(C12-C14)glycidyl ether - (68609- 97-2)	Not Available	Not Available	Not Available

12.2. <u>Persistence and degradability:</u>

There is no data available on the preparation itself.

12.3. <u>Bioaccumulation potential:</u>

Not measured.

12.4. <u>Mobility in soil:</u>

No data available.

12.5. Results of PBT and vPvB assessment:

This product contains no PBT/vPvB chemicals.

12.6. <u>Other adverse effects:</u>

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. <u>Waste treatment methods:</u>

Disposal according to the local regulations.

13.1.1. Information regarding the disposal of the product:

No special recommendation from the manufacturer.

European Waste Code:

For this product no waste disposal key according the European Waste Catalogue (EWC) can be determined, as only the purpose of application defined by the user enables an allocation. The European waste code number has to be determined after a discussion with a specialist dealing with waste disposal.

13.1.2. Information regarding the disposal of the packaging:

Dispose according to the relevant regulations.

13.1.3. Physical/chemical properties that may affect waste treatment options shall be specified:

None known.

13.1.4. Sewage disposal:

None known.

13.1.5. Special precautions for any recommended waste treatment:

No data available.

SECTION 14: TRANSPORT INFORMATION

14.1. UN Number:

UN3082

14.2. <u>UN proper shipping name:</u>

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S

14.3. <u>Transport hazard class(es):</u>

M6

14.4. Packaging group:

III

14.5. <u>Environmental hazard:</u>

Marine Pollutant: yes

14.6. <u>Special precautions for user:</u>

No relevant information available.

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14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code:

Not applicable.

14.8. <u>Other:</u>

Marine Pollutant: Yes; (Diglycidyl ether of bisphenol A) Note: Per IMDG 2.10.2.7, IATA Special Provision A197, and 49 CFR 171.4(c)(2) not subject to marine pollutant provisions when inner containers of combination packaging less than 5 L (liquids) or 5 kg (solids).

SECTION 15: REGULATORY INFORMATION

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

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents

15.2. Chemical safety assessment: no information available.

SECTION 16: OTHER INFORMATION

Information regarding the revision of the safety data sheet:

The safety data sheet has been revised according to Regulation (EU) 2015/830 (Section 1-16).

The classification of the components and the mixture have been amended according to Regulation 1272/2008/EC (CLP) and its amendments.

Full text of the abbreviations in the safety data sheet:

DNEL: Derived no effect level. PNEC: Predicted no effect concentration. CMR effects: carcinogenity, mutagenicity and toxicity for reproduction. PBT: Persistent, bioaccumulative and toxic. vPvB: Very Persistent, Very Bioaccumulative. n.d.: not defined. n.a.: not applicable.

Data sources: safety data sheet (03/21/2016) issued by the manufacturer.

Methods used for the classification according to Regulation 1272/2008/EC:

Skin Irritation 2 - H315	Based on calculation method
Skin Sensitisation 1 – H317	Based on calculation method
Eye Irritation 2- H319	Based on calculation method
Aquatic Chronic 2 – H411	Based on calculation method

Relevant H-Phrases (number and full text) of Section 2 and 3:

H315 – Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H335 – May cause respiratory irritation.

H411 – Toxic to aquatic life with long lasting effects.

Training advice: no data available.

This safety data sheet had been prepared on the basis of information provided by the manufacturer/supplier and conform to the relevant regulations.

The information, data and recommendations contained herein are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date issued; however, no representation is made as to the comprehensiveness of the information. The SDS shall be used only as a guide for handling the product; in the course of handling and using the product other considerations may arise or be required.

Users are cautioned to determine the appropriateness and applicability of the above information to their particular circumstances and purposes and assume all risk associated with the use of this product. It is the responsibility of the user to fully comply with local, national and international regulations concerning the use of this product.

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Safety data sheet was prepared by: ToxInfo Kft.

Professional help regarding the explanation of the safety data sheet: +36 70 335 8480; $\underbrace{\text{info@msds-europe.com}}$

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SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

1.4. Product identifier:

White epoxy repair hardener Brunswick

Alternate Names:

Product Identity: White epoxy repair hardener Brunswick

Product code: 61-860073-999B 82-9008

1.2. Relevant identified uses of the substance and uses advised against:

Epoxy constituents, restricted for professional use.

1.3. Details of the supplier of the safety data sheet:

Brunswick Bowling Products, LLC

525 W. Laketon Ave. Muskegon, MI 49441. USA

1.3.1. Responsible person:

E-mail: brunswick.hu@brunswickbowling.com

1.4. <u>Emergency telephone number:</u> 24-hour Emergency Telephone No.: CHEMTEL +1 813-248-0585

Customer Service: Brunswick Bowling Products, LLC: 231-725-4966

SECTION 2: HAZARDS IDENTIFICATION

2.1. <u>Classification of the mixture:</u>

Classification according to Regulation 1272/2008/EC (CLP):

Skin corrosion 1B - H314 Serious eye damage 1- H318 Skin sensitisation 1 - H317

Warning H statements:

H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

2.2. <u>Label elements:</u>

Components which define the hazards: 2-piperazin-1-ylethylamine





DANGER

Warning H statements:

H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

Precautionary **P statements:**

P261- Avoid breathing dust / fume / gas / mist / vapors / spray.

P264 - Wash thoroughly after handling.

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P272 - Contaminated work clothing should not be allowed out of the workplace.

P280 - Wear protective gloves / eye protection / face protection.

P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302+352 - IF ON SKIN: Wash with plenty of soap and water.

P303+361+353 - IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+351+338 - 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 CENTER or doctor / physician.

P313 - Get medical advice/ attention.

P321 - Specific treatment (see information on this label).

P333+313 - If skin irritation or a rash occurs: Get medical advice / attention.

P363 - Wash contaminated clothing before reuse.

P405 – Store locked up.

P501 - Dispose of contents/container in accordance with local / national regulations

2.3. Other hazards:

No other known specific hazards for human or environment.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. <u>Substance</u>

Not applicable.

3.2. <u>Mixture:</u>

Description	CAS number	EC number	REACH reg. nr.	Conc. (%)	Classification: 1272/2008/EC (CLP)		
Description					Hazard pict.	Hazard cat.	H phrase
2-piperazin-1- ylethylamine	140-31-8	205-411-0	-	5 - 10	GHS05 GHS07 Danger	Acute Tox. 4 (*) Acute Tox. 4 (*) Skin Corr. 1B Skin Sens. 1 Aquatic Chronic 3	H312 H302 H314 H317 H412

^{*:} Substance classified by the manufacturer or substance which has no obligatory classification according to the EU regulations.

In accordance with paragraph (i) of \$1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

For the full text of H phrases: see Section 16.

SECTION 4: FIRST AID MEASURES

4.1. <u>Description of first aid measures:</u>

General:

NOTES TO PHYSICIAN: Treat symptomatically. No artificial respiration, mouth-to-mouth or mouth to nose. Use suitable instruments/apparatus. Ensure that medical personnel are aware of the material (s) involved, take precautions to protect themselves and prevent spread of contamination.

Treat symptomatically. Effects of contact or inhalation may be delayed. Keep warm and in a quiet place. Additional information is given in the SDS.

IN CASE OF INGESTION:

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Measures:

If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

IN CASE OF INHALATION:

Measures:

- Remove to fresh air, keep patient warm and at rest.
- If breathing is irregular or stopped, give artificial respiration.
- If unconscious place in the recovery position and obtain immediate medical attention.
- Give nothing by mouth.

IN CASE OF SKIN CONTACT:

Measures:

- Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser..

IN CASE OF EYE CONTACT:

Measures:

- Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

4.2. Most important symptoms and effects, both acute and delayed:

Overview Pre-existing medical conditions aggravated by exposure may include disorders of the skin, respiratory and

central nervous system.

EFFECTS: May irritate skin and cause redness and pain. Respiratory track irritation. See section 2 for

further details.

Inhalation May cause allergy or asthma symptoms of breathing difficulties if inhaled.

Eyes Causes serious eye damage.

Skin May cause an allergic skin reaction. Causes severe skin burns and eye damage.

4.3. <u>Indication of any immediate medical attention and special treatment needed:</u>

No data available.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. <u>Extinguishing media:</u>

5.1.1. Suitable extinguishing media:

Foam, CO2, dry chemical.

5.1.2. Unsuitable extinguishing media:

No data available.

5.2. Special hazards arising from the substance or mixture:

PERSONAL PRECAUTIONS: Do not take internally. Avoid prolonged breathing of vapors. Protect against physical damage. PROTECTIVE EQUIPMENT: Full encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Safety glasses with side shield, protective gloves and chemical resistant gloves/gauntlets, boots and apron (where rick of splashing).

EMERGENCY PRECAUTIONS: Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers.

Hazardous decomposition: Thermal decomposition can lead to release of irritating gases and vapors.

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. <u>Advise for fire fighters:</u>

Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open fire. Closed containers may explode when exposed to extreme heat.

Not Flammable.

Combustion Products: Carbon oxides.

Use self-contained breathing apparatus, use water for cooling container to prevent pressure build up, auto-ignition or explosion. Avoid spreading burning liquid with water. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1. <u>Personal precautions, protective equipment and emergency procedures:</u>
- 6.1.1 For non-emergency personnel:

Keep unprotected people away, allow only well trained experts wearing suitable protective clothing to abide in the field of accident.

6.1.2. For emergency responders:

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Put on appropriate personal protective equipment (see section 8).

PERSONAL PRECAUTIONS: Do not take internally. Avoid prolonged breathing of vapors. Protect against physical damage. PROTECTIVE EQUIPMENT: Full encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Safety glasses with side shield, protective gloves and chemical resistant gloves/gauntlets, boots and apron (where rick of splashing).

EMERGENCY PRECAUTIONS: Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers.

6.2. Environmental precautions:

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up:

PERSONAL PRECAUTIONS: Do not take internally. Avoid prolonged breathing of vapors. Protect against physical damage. PROTECTIVE EQUIPMENT: Full encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Safety glasses with side shield, protective gloves and chemical resistant gloves/gauntlets, boots and apron (where rick of splashing).

EMERGENCY PRECAUTIONS: Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers.

Contain spillage and then either pump it into a salvage container or utilize absorbent material, collect the spent absorbent material in a salvage container. Dispose of the material according to Federal, State, and local regulations for disposal, Use inert absorbent material to take up spilled material. Place in appropriate container until proper disposal method is determined.

SMALL SPILL: Eliminate all ignition sources. Contain the spill utilizing absorbent pads and absorbent dike/burm material. Place the spilled material in a salvage container for disposal according to local/national regulations. Clean up any remaining residue according to company policy. Ensure that no material enters the water system or sewer system. Local authorities should be contacted if Use personal protective equipment. Ensure adequate ventilation. Keep people away from and upwind of spill/leak.

LARGE SPILL: Eliminate all ignition sources. Prevent spreading over a wide area (e.g. by the use of burms or dikes created with absorbent material.) Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained. Consideration should be given to contacting specialized vendors to assist in mitigating the spill.

6.4. <u>Reference to other sections:</u>

For further and detailed information see section 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. <u>Precautions for safe handling:</u>

Observe conventional hygiene precautions.

Keep away from heat/sparks/open flames/hot surfaces. NO SMOKING.

Keep container tightly closed.

Ground/Bond container and receiving equipment.

Use explosion-proof electrical equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wear protective gloves/eye protection/face protection.

Avoid generation of vapors. Do not inhale vapors.

See section 2 for further details. - [Prevention]:

7.2. <u>Conditions for safe storage, including any incompatibilities:</u>

Handle containers carefully to prevent damage and spillage.

Keep away from open flames, hot surfaces and sources of ignition. Keep container tightly closed in a dry and will ventilated place. Keep at a temperature between 0 to 50 degrees Celsius.



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Store in well-ventilated area between 4 degrees C and 38 degrees C. Store away from heat and sources of ignition. ECI takes no responsibility for determining what measures are required for personal protection in any specific application. The general information given should be used with discretion.

Packaging material: no special prescriptions.

Incompatible materials: No data available.

7.3. Specific end use(s):

No data available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. <u>Control parameters:</u>

Occupational exposure limit values:

The components of the mixture are not regulated with exposure limit value.

DNEL		Routes of exposure	Exposure frequency	Remarks:
Worker	Consumer			
no data	no data	Dermal	Short term (acute)	no data available
available	available		Long term (repeated)	
no data	no data	Inhalative	Short term (acute)	no data available
available	available		Long term (repeated)	
no data	no data	Oral	Short term (acute)	no data available
available	available		Long term (repeated)	

PNEC	Exposure frequency:		Exposure frequency:	Remarks:
Water	Soil	Air		
no data available	no data available	no data available	Short term (single use) Long term (continuous)	no data available
no data available	no data available	no data available	Short term (single use) Long term (continuous)	no data available
no data available	no data available	no data available	Short term (single use) Long term (continuous)	no data available

8.2. Exposure controls:

In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers

8.2.1 Appropriate engineering controls:

In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin.

Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn

Other Work Practices Eye bath and safety shower, uniforms or aprons may be used to avoid excessive contact. Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

- 8.2.2. Individual protection measures, such as personal protective equipment:
 - 1. Eye/face protection: Wear safety glasses with side shields.
 - 2. Skin protection:
 - a. Hand protection: Polyvinyl acetate/protective gloves.
 - b. Other: Chemical resistant gloves/gauntlets, boots, and apron (where risk of splashing.)
 - 3. Respiratory protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
 - 4. Thermal hazard: None known.
- 8.2.3. Environmental exposure controls:

No special measures required.

The requirements detailed in Section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions an expert's advice should be sought out before deciding upon further protective measures.

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9.1. <u>Information on basic physical and chemical properties:</u>

Test method: Remarks: Parameter

No applicable

not measured

CC

1. Appearance: Medium Yellow Liquid 2. Odour: Amine odor 3. Odour threshold: not determined 4. pH value: not applicable not applicable

5. Melting point/ freezing point: 6. Initial boiling point/boiling range: n.a.

7. Flash point: 160°C 8. Evaporation rate (Ether=1): No applicable

information was found 9. Flammability (solid, gas): not applicable

10. Upper/lower flammability or explosive No applicable limits: information was found

No applicable 11. Vapour pressure: information was found

12 Vapour density: No applicable information was found

13. Relative density: 1.1618 14. Solubility(ies): In water: immiscible

not measured 15. Partition coefficient: n-octanol/water: 16. Auto-ignition temperature: No applicable

information was found

No applicable 17. Decomposition temperature: information was found

information was found 19. Explosive properties: not measured

20. Oxidizing properties: 9.2. Other information: No data available.

18. Viscosity:

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

Hazardous Polymerization will not occur.

10.2. Chemical stability:

Stable under normal circumstances.

10.3. Possibility of hazardous reactions:

No data available.

10.4. Conditions to avoid:

Keep away from open flames, hot surfaces and sources of ignition.

10.5. **Incompatible materials:**

No data available.

Hazardous decomposition products: 10.6.

Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects:

Acute toxicity: none known.

Skin corrosion/irritation: Causes severe skin burns.

Serious eye damage/eye irritation: Causes severe skin burns and eye damage. Causes serious eye damage.

Respiratory or skin sensitisation: May cause an allergic skin reaction.

Germ cell mutagenicity: none known.

Carcinogenicity: none known. Reproductive toxicity: none known. STOT-single exposure: none known.

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STOT-repeated exposure: none known.

Aspiration hazard: none known.

11.1.1. For substances subject to registration, brief summaries of the information derived from the test conducted: No data available.

11.1.2. Relevant toxicological properties of the hazardous substances:

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
2-piperazin-1-ethylamine - (140-31-8)	2,107.50, Rat - Category: 5	866.80, Rabbit - Category: 3	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, The converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Carcinogenity:

CAS No.	Ingredient	Source	Value
140-31-8	2-piperazin-1-	OSHA	Select Carcinogen: No
	ethylamine	NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

11.1.3. Information on likely routes of exposure:

Ingestion, inhalation, skin contact, eye contact.

11.1.4. Symptoms related to the physical, chemical and toxicological characteristics:

No data available.

11.1.5. Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Causes serious eye damage.

Causes severe skin burns.

May cause an allergic skin reaction.

11.1.6. Interactive effects:

No data available.

11.1.7. Absence of specific data:

No information.

11.1.8. Other information:

No data available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity:

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and GHS and is not classified as dangerous for the environment, but contains substance (s) dangerous for the environment. See section 3 for details

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish,	48 hr EC50 crustacea,	ErC50 algae,
	mg/l	mg/l	mg/l
2-piperazin-1-ethylamine - (140-31-8)	100.00, Oncorhynchus mykiss	32.00, Daphnia magna	495.00 (72 hr), Pseudokirchneriella subcapitata

12.2. Persistence and degradability:

There is no data available on the preparation itself.

12.3. <u>Bioaccumulation potential:</u>

Not measured.

12.4. <u>Mobility in soil:</u>

No data available.

12.5. Results of PBT and vPvB assessment:

This product contains no PBT/vPvB chemicals.

12.6. <u>Other adverse effects:</u>

No data available.

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SECTION 13: DISPOSAL CONSIDERATIONS

13.1. <u>Waste treatment methods:</u>

Disposal according to the local regulations.

13.1.1. Information regarding the disposal of the product:

Dispose of material in accordance with all federal, state, and local regulations.

European Waste Code:

No appropriate EWC code can be given for the substance, since the identification of the proper code can be done with the method of use defined by the user of the substance. The European waste code number has to be determined after a discussion with a specialist dealing with waste disposal.

13.1.2. Information regarding the disposal of the packaging:

Dispose according to the relevant regulations.

13.1.3. Physical/chemical properties that may affect waste treatment options shall be specified:

None known.

13.1.4. Sewage disposal:

None known.

13.1.5. Special precautions for any recommended waste treatment:

No data available.

SECTION 14: TRANSPORT INFORMATION

14.1. <u>UN Number:</u>

1760

14.2. <u>UN proper shipping name:</u>

CORROSIVE LIQUIDS N.O.S

14.3. <u>Transport hazard class(es):</u>

C9

14.4. <u>Packaging group:</u>

III

14.5. <u>Environmental hazard:</u>

Marine Pollutant: No.

14.6. Special precautions for user:

No relevant information available.

14.7. <u>Transport in bulk according to Annex II of MARPOL and the IBC Code:</u>

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

15.2. <u>Chemical safety assessment:</u> no information available.

SECTION 16: OTHER INFORMATION

Information regarding the revision of the safety data sheet:

The safety data sheet has been revised according to Regulation (EU) 2015/830 (Section 1-16).

The classification of the components and the mixture have been amended according to Regulation 1272/2008/EC (CLP) and its amendments.

Full text of the abbreviations in the safety data sheet:

DNEL: Derived no effect level. PNEC: Predicted no effect concentration. CMR effects: carcinogenity, mutagenicity and toxicity for reproduction. PBT: Persistent, bioaccumulative and toxic. vPvB: Very Persistent, Very Bioaccumulative. n.d.: not defined. n.a.: not applicable.

Key literature references and sources for data: safety data sheet (03. 21. 2016) issued by the manufacturer.

Methods used for the classification according to Regulation 1272/2008/EC:

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Skin corrosion 1B - H314	Based on calculation method
Serious eye damage 1- H318	Based on calculation method
Skin sensitisation 1 - H317	Based on calculation method

Relevant H-Phrases (number and full text) of Section 2 and 3:

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- **H317** May cause an allergic skin reaction.
- **H412** Harmful to aquatic life with long lasting effects.

Training advice: no data available.

This safety data sheet had been prepared on the basis of information provided by the manufacturer/supplier and conform to the relevant regulations.

The information, data and recommendations contained herein are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date issued; however, no representation is made as to the comprehensiveness of the information. The SDS shall be used only as a guide for handling the product; in the course of handling and using the product other considerations may arise or be required.

Users are cautioned to determine the appropriateness and applicability of the above information to their particular circumstances and purposes and assume all risk associated with the use of this product. It is the responsibility of the user to fully comply with local, national and international regulations concerning the use of this product.

Safety data sheet was prepared by: ToxInfo Kft.

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