

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

1.1. Product identifier:

Ultima Pro Plug Ball Plug Kit (2 Gal. Case)

Alternate Names:

Product Identity:

Ultima Pro Plug Ball Plug Kit (2 Gal. Case)

Alternate Names

Contents: Ultima Pro-Plug Hardener (1/2 Gal.) &
Ultima Pro-Plug Compound (3 x 1/2 Gal.)

Product code:

160321UPP

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

Cross-linking agent, 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. Emergency telephone number:

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

SAFETY DATA SHEET

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

1.2. Product identifier:

Ultima Pro Plug Hardener (1/2 Gallon)

Alternate Names:

Product Identity: **Ultima Pro Plug Hardener (1/2 Gallon)**

Product code: 160321UH

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. 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 corrosion 1B - H314

Serious eye damage 1- H318

Skin sensitisation 1 - H317

Respiratory sensitisation 1 - H334

Reproductive toxicity 2 - H361fd

Warning **H statements:**

H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

H334 - May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

H361fd - Suspected of damaging fertility or the unborn child.

2.2. Label elements:

Components which define the hazards:

Triethylenetetramine

2-piperazin-1-ylethylamine

Piperazine

GHS08



GHS05

**DANGER****Warning H statements:**

- H314** - Causes severe skin burns and eye damage.
- H317** - May cause an allergic skin reaction.
- H318** - Causes serious eye damage.
- H334** - May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.
- H361fd** - Suspected of damaging fertility or the unborn child.

Precautionary P statements:

- P201** - Obtain special instructions before use.
- P202** - Do not handle until all safety precautions have been read and understood.
- P261** - Avoid breathing dust / fume / gas / mist / vapors / spray.
- P264** - Wash thoroughly after handling.
- P272** - Contaminated work clothing should not be allowed out of the workplace.
- P280** - Wear protective gloves / eye protection / face protection.
- P284** - [In case of inadequate ventilation] wear respiratory 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+312** - IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.
- P305+351+338** - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
- P308+313** - IF exposed or concerned: Get medical advice / attention.
- P310** - Immediately call a POISON CENTER or doctor / physician.
- P321** - Specific treatment (see information on this label).
- P333+313** - If skin irritation or a rash occurs: Get medical advice / attention.
- P340** - Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P341** - If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P342+311** - If experiencing respiratory symptoms: Call a POISON CENTER or doctor / physician.
- 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. Substance
Not applicable.

3.2. Mixture:

Description	CAS number	EC number	REACH reg. nr.	Conc. (%)	Classification: 1272/2008/EC (CLP)		
					Hazard pict.	Hazard cat.	H phrase
Triethylenetetramine	112-24-3	203-950-6	-	10 - 25	GHS05 GHS07 Danger	Acute Tox. 4 (*) Skin Corr. 1B Skin Sens. 1 Aquatic Chronic 3	H312 H314 H317 H412
Triethanolamine*	102-71-6	203-049-8	-	5 - 10	GHS07 Warning	Eye Irrit. 2	H319
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
Piperazine	110-85-0	203-808-3	-	1 - 5	GHS08 GHS05 Danger	Repr. 2 Skin Corr. 1B Resp. Sens. 1 Skin Sens. 1	H361fd H314 H334 H317

*: 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. Description of first aid measures:

General:

In all cases of doubt, or when symptoms persist, seek medical attention.

Never give anything by mouth to an unconscious person.

IN CASE OF INGESTION:

Measures:

- Not an expected route of exposure.

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:

- Wash immediately with soap and water, removing contaminated clothes and shoes. Wash contaminated clothing before reuse.
- In case of skin irritation or allergic reactions, see a physician.

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**

Notes to Physician: Treat Symptomatically. May cause sensitization by inhalation and skin contact.

Protection of First-Responders: Avoid contact with skin, eyes and clothing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; use artificial respiration with the aid of a pocket mask equipped with a one-way valve or other respiratory medical device. 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 be harmful in contact with skin. (Not adopted by US OSHA) May cause an allergic skin reaction. Causes severe skin burns and eye damage.

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

No data available.

SECTION 5: FIRE-FIGHTING MEASURES5.1. **Extinguishing media:**

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:**

Hazardous decomposition: No hazardous decomposition data available.

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

5.3. **Advise for fire fighters:**

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

ERG Guide No.: 153

SECTION 6: ACCIDENTAL RELEASE MEASURES6.1. **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).

6.2. **Environmental precautions:**

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:**

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8. Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations. (See section 13). Clean, preferably with a detergent. Do not use solvents. Do not allow spills to enter drains or watercourses. If drains, sewers, streams or lakes are contaminated, inform the local water company immediately. In the case of contamination of rivers, streams or lakes the Environmental Protection Agency should also be informed.

6.4. **Reference to other sections:**

For further and detailed information see section 8 and 13.

SECTION 7: HANDLING AND STORAGE

- 7.1. Precautions for safe handling:
Observe conventional hygiene precautions.
Use personal protective equipment. Avoid contact with skin, eyes and clothing.
See section 2 for further details. - [Prevention]:
- 7.2. Conditions for safe storage, including any incompatibilities:
Handle containers carefully to prevent damage and spillage.
Incompatible materials: No data available.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Packaging material: no special prescriptions.
See section 2 for further details. - [Storage]:
- 7.3. Specific end use(s):
No data available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1. Control parameters:
Occupational exposure limit values:
Triethanolamine (CAS: 102-71-6):
8-hour reference period: - ppm; 5 mg/m³;
15 minute reference period: - ppm; - mg/m³
- Piperazine** (CAS: 110-85-0):
8-hour reference period: - ppm; 0,1 mg/m³;
15 minute reference period: - ppm; 0,3 mg/m³

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

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. 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** Local exhaust ventilation is recommended. Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapor.
- Other Work Practices** 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: Chemical resistant gloves (where risk of splashing).
 - b. Other: Chemical resistant 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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties:

Parameter	Test method:	Remarks:
1. Appearance:		
2. Odour:		
3. Odour threshold:		
4. pH:		
5. Melting point/ freezing point:		
6. Initial boiling point/boiling range:		
7. Flash point:		
8. Evaporation rate (Ether=1):		
9. Flammability (solid, gas):		
10. Upper/lower flammability or explosive limits:		
11. Vapour pressure:		
12. Vapour density:		
13. Relative density:		
14. Solubility(ies):		
15. Partition coefficient: n-octanol/water:		
16. Auto-ignition temperature:		
17. Decomposition temperature:		
18. Viscosity:		
19. Explosive properties:		
20. Oxidizing properties:		

9.2. Other information:

Density: 1.017 g/cm³ (8.49 lb/gal)

SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:
No data available
- 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:

Date of revision:
Version:1

No data available.

10.6. Hazardous decomposition products:

No hazardous decomposition data available.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects:

Acute toxicity: none known.

Skin corrosion/irritation: Causes severe skin burns.

Serious eye damage/irritation: Causes serious eye damage.

Respiratory or skin sensitisation: May cause allergic or asthmatic symptoms of breathing difficulties if inhaled. May cause an allergic skin reaction.

Germ cell mutagenicity: none known.

Carcinogenicity: none known.

Reproductive toxicity: Suspected of damaging fertility or the unborn child.

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:

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
Triethylenetetramine - (112-24-3)	2,780.00, Rat - Category: 5	550.00, Rabbit - Category: 3	No data available	No data available	No data available
Triethanolamine - (102-71-6)	No data available	No data available	No data available	No data available	No data available
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
Piperazine - (110-85-0)	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).

Carcinogenicity:

CAS No.	Ingredient	Source	Value
102-71-6	Triethanolamine	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;
110-85-0	Piperazine	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;
112-24-3	Triethylenetetramine	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;
140-31-8	2-piperazin-1-ethylamine	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;

Date of revision:

Version:1

- 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.
Suspected of damaging fertility or the unborn child.
May cause allergic or asthmatic symptoms of breathing difficulties if inhaled. 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, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Triethylenetetramine - (112-24-3)	495.00, Pimephales promelas	33.90, Daphnia magna	20.00 (72 hr), Selenastrum capricornutum
Triethanolamine - (102-71-6)	Not Available	Not Available	Not Available
2-piperazin-1-ethylamine - (140-31-8)	100.00, Oncorhynchus mykiss	32.00, Daphnia magna	495.00 (72hr), Pseudokirchneriella subcapitata
Piperazine - (110-85-0)	10,000 Lepomis macrochirus	Not Available	210.00 (72hr), Desmodesmus subspicatus

- 12.2. Persistence and degradability:
There is no data available on the preparation itself.
- 12.3. Bioaccumulative potential:
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. Waste treatment methods:
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. UN Number:
3267
- 14.2. UN proper shipping name:
Corrosive liquid, basic, organic, n.o.s., (contains Triethylenetetramine and Piperazine)
- 14.3. Transport hazard class(es):
DOT/ IMDG/ Air Class: 8
LTD QTY
- 14.4. Packing group:
III.
- 14.5. Environmental hazards:
Marine Pollutant: No.
- 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.

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)

- 15.2. Chemical safety assessment: no information available.

SECTION 16: OTHER INFORMATION

Information regarding the revision of the safety data sheet: none

Full text of the abbreviations in the safety data sheet:

DNEL: Derived no effect level. PNEC: Predicted no effect concentration. CMR effects: carcinogenicity, 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 06. 04. 2016 version 2

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

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
Respiratory sensitisation 1 - H334	Based on calculation method
Reproductive toxicity 2 - H361fd	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.

H319 - Causes serious eye irritation.

H334 - May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child.

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.

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

SAFETY DATA SHEET

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

1.3. Product identifier:

Ultima Pro Plug Compound (1/2 Gallon)

Alternate Names:

Product Identity: **Ultima Pro Plug Compound (1/2 Gallon)**

Product code: 160321UCC

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. 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

Eye Irritation 2 - H319

Skin Sensitization 1 - H317

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)
(1-methyl-1,2-ethanediyl) bis[oxy(methyl-2,1-ethanediyl)] diacrylate
Oxirane, 2-[(C12-13-alkyloxy) methyl] derivs

GHS07



GHS09

**WARNING****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 / vapors / spray.
P264 - Wash 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+352 - IF ON SKIN: Wash with plenty of soap and water.
P305+351+338 - 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+313 - If skin irritation or a rash occurs: Get medical advice / attention.
P337+313 - If eye irritation persists: Get medical advice / attention.
P362 - Take off contaminated clothing and wash before reuse.
P363 - Wash contaminated clothing before reuse.
P391 - Collect spillage.
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 INGREDIENTS3.1. Substance

Not applicable.

3.2. Mixture:

Description	CAS number	EC number	REACH reg. nr.	Conc. (%)	Classification: 1272/2008/EC (CLP)		
					Hazard pict.	Hazard cat.	H phrase
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	25068-38-6	500-033-5		75 - 100	GHS07 GHS09 Warning	Eye Irrit. 2 Skin Irrit. 2 Skin Sens. 1 Aquatic Chronic 2	H319 H315 H317 H411
(1-methyl-1,2-ethanediyl)bis[oxymeth	42978-66-5	256-032-2	-	5 - 10	GHS07 GHS09	Eye Irrit. 2 STOT SE 3	H319 H335

yl- 2,1-ethanediyl]] diacrylate					Warning	Skin Irrit. 2 Skin Sens. 1 Aquatic Chronic 2	H315 H317 H411
Oxirane, 2-[(C12-13-alkyloxy)methyl] derivs.*	120547-52-6	-	-	1 - 5	GHS07 GHS09 Warning	Skin Irrit. 2 Skin Sens. 1 Eye Irrit. 2 Aquatic Chronic 2	H315 H317 H319 H411

*: 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. Description of first aid measures:

General:

In all cases of doubt, or when symptoms persist, seek medical attention.

Never give anything by mouth to an unconscious person.

IN CASE OF INGESTION:

Measures:

- Not an expected route of exposure.

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:

- Wash immediately with soap and water, removing contaminated clothes and shoes. Wash contaminated clothing before reuse.
- In case of skin irritation or allergic reactions, see a physician.

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

Notes to Physician: Treat Symptomatically.

Protection of First-Responders: Avoid contact with skin, eyes and clothing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; use artificial respiration with the aid of a pocket mask equipped with a one-way valve or other respiratory medical device. See section 2 for further details.

Eyes

Causes serious eye irritation.

Skin

May cause an allergic skin reaction. Causes skin irritation.

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

No data available.

SECTION 5: FIRE-FIGHTING MEASURES5.1. Extinguishing media:

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:

Hazardous decomposition: Carbon monoxide, carbon dioxide, aldehydes, and various compounds from incomplete combustion.

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

5.3. Advise for fire fighters:

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

At higher temperature vapors can cause pressure buildup in sealed containers. Use water to cool containers exposed to fire. Self-contained respirator equipment and full protective clothing required when smoke or fumes are generated. Electrical grounding not recommended.

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SECTION 6: ACCIDENTAL RELEASE MEASURES6.1. 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:

Eliminate sources of ignition. Keep container closed and protect against physical damage. Do not take internally.

Avoid prolonged breathing of vapors

6.2. Environmental precautions:

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:

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8. Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations. (See section 13). Clean, preferably with a detergent. Do not use solvents. Do not allow spills to enter drains or watercourses. If drains, sewers, streams or lakes are contaminated, inform the local water company immediately. In the case of contamination of rivers, streams or lakes the Environmental Protection Agency should also be informed.

6.4. Reference to other sections:

For further and detailed information see section 8 and 13.

SECTION 7: HANDLING AND STORAGE7.1. Precautions for safe handling:

Observe conventional hygiene precautions.

Use personal protective equipment. Avoid contact with skin, eyes and clothing.

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

7.2. Conditions for safe storage, including any incompatibilities:

Handle containers carefully to prevent damage and spillage.

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

Keep containers tightly closed in a dry, cool and well-ventilated place.

Packaging material: no special prescriptions.

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

7.3. Specific end use(s):

No data available.

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 available	no data available	Dermal	Short term (acute) Long term (repeated)	no data available
no data available	no data available	Inhalative	Short term (acute) Long term (repeated)	no data available
no data available	no data available	Oral	Short term (acute) Long term (repeated)	no data available

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. 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

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:
 - c. Hand protection: Chemical resistant gloves (where risk of splashing).
 - d. Other: Chemical resistant 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.
5. 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. Information on basic physical and chemical properties:

Parameter	Test method:	Remarks:
1. Appearance:	Light Yellow Liquid	
2. Odour:	Mild solvent	
3. Odour threshold:	not determined	
4. pH value:	not measured	
5. Melting point/ freezing point:	not measured	
6. Initial boiling point/boiling range:	110.55°C	
7. Flash point:	not measured	
8. Evaporation rate (Ether=1):	not measured	
9. Flammability (solid, gas):	not applicable	
10. Upper/lower flammability or explosive limits:	lower explosive limit: 1,2% upper explosive limit: 7,1%	
11. Vapour pressure:	not measured	
12 Vapour density:	not measured	
13. Relative density:	1.13 (H ₂ O = 1)	
14. Solubility(ies):	not measured	
15. Partition coefficient: n-octanol/water:	not measured	
16. Auto-ignition temperature:	not measured	
17. Decomposition temperature:	not measured	
18. Viscosity:	not measured	
19. Explosive properties:	not measured	
20. Oxidizing properties:	not measured	

9.2. Other information:Density: 1.13 g/cm³ (9.43 lb/gal)

% Volatile (by volume): 0.01%

Volatiles (by weight): 0.007%

SECTION 10: STABILITY AND REACTIVITY10.1. 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.

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:

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

10.6. Hazardous decomposition products:

Carbon monoxide, carbon dioxide, aldehydes, and various compounds from incomplete combustion.

SECTION 11: TOXICOLOGICAL INFORMATION11.1. Information on toxicological effects:

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.

Date of revision:
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Reproductive toxicity: none known.
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:

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
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
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
Oxirane, 2-[[C12-13-alkyloxy)methyl] derivs. - (120547-52-6)	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
25068-38-6	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;
42978-66-5	Tripropylene glycol diacrilate	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;
120547-52-6	Oxirane, 2-[[C12-13-alkyloxy) methyl] derivs.	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;

- 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:
Eyes Causes serious eye irritation.
Skin May cause an allergic skin reaction. Causes skin irritation.
- 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 INFORMATION12.1. Toxicity:

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
Tripropylene glycol diacrylate - (42978-66-5)	4.50, Leuciscus idus	88.70, Daphnia magna	28.00 (72 hr), Scenedesmus subspicatus
Oxirane, 2-[[C12-13-alkyloxy)methyl] derivs. - (120547-52-6)	Not Available	Not Available	Not Available

12.2. Persistence and degradability:

There is no data available on the preparation itself.

12.3. Bioaccumulation potential:

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 CONSIDERATIONS13.1. Waste treatment methods:

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 INFORMATION14.1. UN Number:

Not Regulated.

14.2. UN proper shipping name:

Not Regulated.

14.3. Transport hazard class(es):

Not Regulated.

14.4. Packaging group:

Not Regulated.

14.5. Environmental hazard:

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Marine Pollutant: No.

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. Others:

IMDG

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)

15.2. Chemical safety assessment: no information available.

SECTION 16: OTHER INFORMATION

Information regarding the revision of the safety data sheet: none

Full text of the abbreviations in the safety data sheet:

DNEL: Derived no effect level. PNEC: Predicted no effect concentration. CMR effects: carcinogenicity, 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 06. 04. 2016 version 2

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

Skin Irritation 2 - H315	Based on calculation method
Eye Irritation 2 - H319	Based on calculation method
Skin Sensitization 1 - H317	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.

Safety data sheet was prepared by: ToxInfo Kft.

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