

A Meridian Adhesives Group Company

EPO-TEK® 301-2FL-T PMF SYRINGE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 7/7/2022 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : EPO-TEK® 301-2FL-T PMF SYRINGE

1.2. Recommended use and restrictions on use

Use of the substance/mixture : adhesives Recommended use : adhesives

Restrictions on use : Not to be used for any purpose other than the one the product was designed for

1.3. Supplier

Epoxy Technology, Inc. 14 Fortune Drive

Billerica, MA 01821, 01821

USA

T 978-667-3805 - F 978-663-9782

www.epotek.com

1.4. Emergency telephone number

Emergency number : ChemTel: +1 (800) 255-3924, +1 (813) 248-0585

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation Category 1C H314 Causes severe skin burns and eye damage

Serious eye damage/eye irritation Category 1 H318 Causes serious eye damage
Skin sensitization, Category 1 H317 May cause an allergic skin reaction

Hazardous to the aquatic environment – Chronic Hazard Category 2 H411 Toxic to aquatic life with long lasting effects

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)







Signal word (GHS US) : Danger

Hazard statements (GHS US) : H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction H318 - Causes serious eye damage

H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS US)

: P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

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

P264 - Wash hands, forearms and face thoroughly after handling.

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

P273 - Avoid release to the environment.

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

P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting.

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P302+P352 - If on skin: Wash with plenty of water.

P303+P361+P353 - If on skin (or hair): 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+P351+P338 - 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.

P321 - Specific treatment (see supplemental first aid instruction on this label).

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

P363 - Wash contaminated clothing before reuse.

P391 - Collect spillage.

P405 - Store locked up.

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : Harmful dust may be released during cutting, milling or grinding process.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Bisphenol A diglycidyl ether resin	CAS-No.: 1675-54-3	10 – 60	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Polyoxypropylenediamine	CAS-No.: 9046-10-0	10 – 30	Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Chronic 3, H412
Epoxy resin*	CAS-No.: Trade Secret	10 – 30	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
Bisphenol A diglycidyl ether resin	CAS-No.: 25085-99-8	5 – 10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Reactive diluent*	CAS-No.: Trade Secret	1 – 5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Acute 3, H402 Aquatic Chronic 3, H412

^{*}Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Comments : Components not listed are either non-hazardous or are below reportable limits.

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Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a

physician immediately.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact : Burns. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing

apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe

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

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer

to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material.

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Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray. Wear personal protective equipment.

Hygiene measures

: Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

EPO-TEK® 301-2FL-T PMF SYRINGE

No additional information available

Polyoxypropylenediamine (9046-10-0)

No additional information available

Epoxy resin

No additional information available

Bisphenol A diglycidyl ether resin (1675-54-3)

No additional information available

Bisphenol A diglycidyl ether resin (25085-99-8)

No additional information available

Reactive diluent

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear suitable gloves resistant to chemical penetration. Neoprene or nitrile rubber gloves. Butyl-rubber protective gloves. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Refer to manufacturer's information. Gloves must be replaced after each use and whenever signs of wear or perforation appear

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Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):







SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Color : clear
Odor : Mild odor

Odor threshold : No data available pН : No data available : Not applicable Melting point Freezing point : No data available Boiling point No data available Flash point No data available Relative evaporation rate (butyl acetate=1) No data available Flammability Not applicable. Vapor pressure No data available Relative vapor density at 20 °C No data available Relative density No data available Solubility : No data available Partition coefficient n-octanol/water (Log Pow) : No data available : No data available Auto-ignition temperature : No data available Decomposition temperature No data available Viscosity, kinematic No data available Viscosity, dynamic **Explosion limits** No data available Explosive properties No data available

9.2. Other information

Oxidizing properties

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

No data available

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10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

: Not classified
2885 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral)
2980 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal)
> 0.74 mg/l air (Equivalent or similar to OECD 403, 8 h, Rat, Male / female, Experimental value, Inhalation (vapours))
2885 mg/kg body weight
2980 mg/kg body weight
> 4000 mg/kg body weight (Rat, Literature study, Oral)
> 2000 mg/kg body weight (Rat, Literature study, Dermal)
-8)
> 2000 mg/kg (Rat, Literature study, Oral)
> 5000 mg/kg (Rabbit, Literature study, Dermal)
1120 mg/kg body weight
1100 mg/kg body weight
4500 ppmV/4h
11 mg/l/4h
1.5 mg/l/4h
: Causes severe skin burns. : Causes serious eve damage.

Skin corrosion/irritation: Causes severe skin burns.Serious eye damage/irritation: Causes serious eye damage.Respiratory or skin sensitization: May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

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Carcinogenicity : Not classified

 IARC group
 3 - Not classifiable

 Reproductive toxicity
 : Not classified

 STOT-single exposure
 : Not classified

 STOT-repeated exposure
 : Not classified

Aspiration hazard : Not classified Viscosity, kinematic : No data available

Symptoms/effects after skin contact : Burns. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.

LC50 - Fish [1]	772.14 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Cyprinodon variegatus, Static system, Salt water, Experimental value, GLP)
EC50 - Crustacea [1]	80 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 algae	15 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

Bisphenol A diglycidyl ether resin (1675-54-3)

EC50 - Crustacea [1] 1.7 mg/l

Reactive diluent

110000110 01100111			
LC50 - Fish [1]	13 mg/l		
NOEC chronic algae	29 mg/l		

12.2. Persistence and degradability

Polyoxypropylenediamine (9046-10-0)

Persistence and degradability Not readily biodegradable in water.

Epoxy resin

Persistence and degradability Not readily biodegradable in water.

Bisphenol A diglycidyl ether resin (1675-54-3)

Persistence and degradability Biodegradability in water: no data available.

Bisphenol A diglycidyl ether resin (25085-99-8)

Persistence and degradability

Not readily biodegradable in water.

Reactive diluent

Persistence and degradability Not readily biodegradable in water.

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12.3. Bioaccumulative potential

Polyoxypropylenediamine (9046-10-0)		
Partition coefficient n-octanol/water (Log Pow)	1.34 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
Epoxy resin		
Bioaccumulative potential	No bioaccumulation data available.	
Bisphenol A diglycidyl ether resin (1675-54-3)		
Bioaccumulative potential	Not bioaccumulative.	
Bisphenol A diglycidyl ether resin (25085-99-8)		
Partition coefficient n-octanol/water (Log Pow)	3.242 (Literature)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
Reactive diluent		
Partition coefficient n-octanol/water (Log Pow)	-0.15	
Bioaccumulative potential	Not bioaccumulative.	

12.4. Mobility in soil

Polyoxypropylenediamine (9046-10-0)	
Surface tension	Data waiving
Ecology - soil	No (test)data on mobility of the substance available.
Epoxy resin	
Ecology - soil	No (test)data on mobility of the substance available.
Bisphenol A diglycidyl ether resin (25085-99-8)	
Ecology - soil	Low potential for mobility in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

DOT NA NO : UN2735 UN-No. (TDG) : UN2735 UN-No. (IMDG) : 2735 UN-No. (IATA) : 2735

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14.2. UN proper shipping name

Proper Shipping Name (DOT) : Polyamines, liquid, corrosive, n.o.s. (Polyoxypropylenediamine)

Proper Shipping Name (TDG) : POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Polyoxypropylenediamine) Proper Shipping Name (IMDG) : POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Polyoxypropylenediamine)

Proper Shipping Name (IATA) : Amines, liquid, corrosive, n.o.s. (Polyoxypropylenediamine)

14.3. Transport hazard class(es)

Transport hazard class(es) (DOT) : 8

: 8 Hazard labels (DOT)



TDG

Transport hazard class(es) (TDG) : 8 Hazard labels (TDG) : 8



IMDG

Transport hazard class(es) (IMDG) : 8

: 8 Hazard labels (IMDG)



IATA

Transport hazard class(es) (IATA) : 8 8

Hazard labels (IATA)



14.4. Packing group

Packing group (DOT) : III Packing group (TDG) : III Packing group (IMDG) : III : 111 Packing group (IATA)

14.5. Environmental hazards

Dangerous for the environment : Yes Marine pollutant : Yes



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Other information : No supplementary information available.

14.6. Special precautions for user

DOT

UN-No.(DOT) : UN2735

DOT Special Provisions (49 CFR 172.102)

IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table

2 for UN2672).

T7 - 4 178.274(d)(2) Normal...... 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the

MAWP.

: 60 L

5 L

DOT Packaging Exceptions (49 CFR 173.xxx) : 154 DOT Packaging Non Bulk (49 CFR 173.xxx) 203 DOT Packaging Bulk (49 CFR 173.xxx) 241 DOT Quantity Limitations Passenger aircraft/rail (49 : 5 L

CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49

CFR 175.75)

: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a **DOT Vessel Stowage Location**

passenger vessel.

: 52 - Stow "separated from" acids **DOT Vessel Stowage Other**

TDG

UN-No. (TDG) : UN2735

TDG Special Provisions : 16 - (1) The technical name of at least one of the most dangerous substances that predominantly

contributes to the hazard or hazards posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(ii)(A) of Part 3 (Documentation). The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4 (Dangerous Goods Safety Marks).

(2) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical name:

(a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S;

(b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S;

(c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S;

(d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or

(e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S.

(3) Despite subsection (1), the technical name for the following dangerous goods is not required

to be shown on a small means of containment:

(a) UN2814, INFECTIOUS SUBSTANCE, AFFECTING HUMANS; or

(b) UN2900, INFECTIOUS SUBSTANCE, AFFECTING ANIMALS.

Explosive Limit and Limited Quantity Index

: E1 Excepted quantities (TDG) Passenger Carrying Road Vehicle or Passenger : 5 L

Carrying Railway Vehicle Index

Emergency Response Guide (ERG) Number : 153

: 223, 274 Special provision (IMDG)

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Tank special provisions (IMDG)

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Limited quantities (IMDG) · 51 Excepted quantities (IMDG) : E1 Packing instructions (IMDG) : P001, LP01 IBC packing instructions (IMDG) : IBC03 Tank instructions (IMDG) : T7

: TP1, TP28 EmS-No. (Fire) : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE : S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES EmS-No. (Spillage)

Stowage category (IMDG)

Properties and observations (IMDG) : Colourless to yellowish liquids or solutions with a pungent odour. Miscible with or soluble in water. When involved in a fire, evolve toxic gases. Corrosive to most metals, especially to copper

and its alloys. Reacts violently with acids. Cause burns to skin, eyes and mucous membranes.

IATA

PCA Excepted quantities (IATA) : E1 : Y841 PCA Limited quantities (IATA) PCA limited quantity max net quantity (IATA) : 1L PCA packing instructions (IATA) : 852 : 5L PCA max net quantity (IATA) : 856 CAO packing instructions (IATA) CAO max net quantity (IATA) : 60L Special provision (IATA) : A3, A803 ERG code (IATA) 8L

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

CANADA

Polyoxypropylenediamine (9046-10-0)

Listed on the Canadian DSL (Domestic Substances List)

Epoxy resin

Listed on the Canadian DSL (Domestic Substances List)

Bisphenol A diglycidyl ether resin (1675-54-3)

Listed on the Canadian DSL (Domestic Substances List)

Bisphenol A diglycidyl ether resin (25085-99-8)

Listed on the Canadian DSL (Domestic Substances List)

Reactive diluent

Listed on the Canadian DSL (Domestic Substances List)

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EU-Regulations

No additional information available

National regulations

Polyoxypropylenediamine (9046-10-0)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Bisphenol A diglycidyl ether resin (25085-99-8)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Bisphenol A diglycidyl ether resin(1675-54-3)	U.S New York City - Right to Know Hazardous Substances List

SECTION 16: Other information

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Full text of H-phrases	
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.