

A Meridian Adhesives Group Company

EPO-TEK® OG116-31

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS) Issue date: 6/10/2024 Revision date: 12/16/2024 Supersedes: 6/10/2024 Version: 1.1

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture

Product name : EPO-TEK® OG116-31
Product code : EPO-TEK® OG116-31

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Adhesives

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

1.4. Supplier's details

Epoxy Technology, Inc. 14 Fortune Drive Billerica, MA 01821 USA

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

www.epotek.com

1.5. Emergency phone number

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

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
Serious eye damage/eye irritation, Category 2	H319	Causes serious eye irritation.
Skin sensitization, Category 1	H317	May cause an allergic skin reaction.
Germ cell mutagenicity, Category 2	H341	Suspected of causing genetic defects.

Specific target organ toxicity — Repeated exposure, Category 2 H373 May cause damage to organs through prolonged or repeated

exposure.

Hazardous to the aquatic environment — Acute Hazard, Category 3 H402 Harmful to aquatic life.

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. Label elements

GHS US labeling

Hazard pictograms (GHS US)







Signal word (GHS US) : Warning

Hazard statements (GHS US) : H315 - Causes skin irritation

H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation

H341 - Suspected of causing genetic defects.

Safety Data Sheet

Precautionary statements (GHS US)

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

H373 - May cause damage to organs through prolonged or repeated exposure

H402 - Harmful to aquatic life

H411 - Toxic to aquatic life with long lasting effects

: P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P260 - Do not breathe 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.

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

P308+P313 - If exposed or concerned: Get medical advice/attention.

P314 - Get medical advice or attention if you feel unwell.

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

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

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

P362+P364 - Take off contaminated clothing and wash it before reuse.

P391 - Collect spillage.

P405 - Store locked up.

P501 - Dispose of contents and/or container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulations.

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

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

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Epoxy phenol novolac resin*	CAS-No.: Trade Secret	≥ 60	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1A, H317 Aquatic Chronic 2, H411
Bisphenol A diglycidyl ether resin*	CAS-No.: Trade Secret	10 – 30	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Name	Product identifier	%	GHS US classification
Reactive diluent*	CAS-No.: Trade Secret	5 – 10	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
Propylene carbonate	CAS-No.: 108-32-7	1 – 5	Eye Irrit. 2, H319
Epoxy resin*	CAS-No.: Trade Secret	1 – 5	Skin Sens. 1, H317 Muta. 2, H341 STOT SE 3, H336 STOT RE 2, H373
Photoinitiator*	CAS-No.: Trade Secret	<1	Acute Tox. 4 (Oral), H302 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

^{*}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.

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

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

SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention.

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

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs:

Get medical advice/attention.

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

do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation : None under normal conditions.

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

Symptoms/effects after eye contact : Eye irritation.

Symptoms/effects after ingestion : None under normal conditions.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment : Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

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

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard : No fire hazard.

12/16/2024 (Revision date) US - en 3/15

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Explosion hazard : No direct explosion hazard. Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper

protective equipment, including respiratory protection.

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

General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb

spillage to prevent material-damage.

For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin

and eyes.

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".

Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.

Environmental precautions : Avoid release to the environment.

6.2. Methods and materials for containment and cleaning up

For containment : Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into

sewers or streams. Stop leak, if possible without risk.

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public

waters.

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

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. Obtain special instructions before use. Do not handle

until all safety precautions have been read and understood. Do not breathe

dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes. 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.

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

7.2. Conditions for safe storage, including incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.

Storage conditions : Store locked up.

Packaging materials : Store always product in container of same material as original container.

12/16/2024 (Revision date) US - en 4/15

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

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, such as personal protective equipment

Personal protective equipment:

Wear recommended 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

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):







SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state : Liquid Color : white Odor : slight

Odor threshold : No data available рΗ : No data available Melting point : Not applicable Freezing point : No data available Boiling point : No data available Flash point : No data available Flammability (solid, gas) : 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 Decomposition temperature : No data available : No data available Viscosity, kinematic

12/16/2024 (Revision date) US - en 5/15

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Explosion limits : No data available Particle characteristics : No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

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.

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

Acute toxicity (ilinatation)	. Not classified	
Propylene carbonate (108-32-7)		
LD50 oral rat	> 5000 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))	
LD50 oral	29000 mg/kg	
LD50 dermal rabbit	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))	
LD50 dermal	20000 mg/kg	
LC50 Inhalation - Rat	> 5000 mg/m³ Source: chemIDplus	
ATE US (oral)	29000 mg/kg body weight	
ATE US (dermal)	20000 mg/kg body weight	
Photoinitiator		
ATE US (oral)	500 mg/kg body weight	

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

	according to 25 of 13 g 15 to 12200, Hazard Communication Glandard (1100)		
Epoxy resin			
LD50 oral rat	4490 mg/kg (Rat, Oral)		
LD50 oral	2959 mg/kg		
LD50 dermal rat	> 2000 mg/kg (OECD 402: Acute Dermal Toxicity, Rat, Male / female, Experimental value, Dermal)		
LD50 dermal rabbit	> 2000 mg/kg (Rabbit, Dermal)		
LD50 dermal	2500 mg/kg		
LC50 Inhalation - Rat	> 20 mg/l (4 h, Rat, Inhalation)		
LC50 Inhalation - Rat (Dust/Mist)	5.19 mg/l/4h		
ATE US (oral)	2959 mg/kg body weight		
ATE US (dermal)	2500 mg/kg body weight		
ATE US (dust, mist)	5.19 mg/l/4h		
Reactive diluent			
LD50 oral rat	1134 mg/kg Source: National Library of Medicine		
LD50 oral	1120 mg/kg		
LD50 dermal rat	> 2150 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)		
LD50 dermal rabbit	1130 mg/kg Source: National Library of Medicine		
LD50 dermal	2150 mg/kg		
ATE US (oral)	1120 mg/kg body weight		
ATE US (dermal)	1130 mg/kg body weight		
ATE US (gases)	4500 ppmV/4h		
ATE US (vapors)	11 mg/l/4h		
ATE US (dust, mist)	1.5 mg/l/4h		
Skin corrosion/irritation	: Causes skin irritation.		
Propylene carbonate (108-32-7)			
pH	7 (20 %, 20 °C)		
Reactive diluent			
рН	7 (100 %)		
Serious eye damage/irritation	: Causes serious eye irritation.		
Propylene carbonate (108-32-7)			
рН	7 (20 %, 20 °C)		
Reactive diluent			
рН	7 (100 %)		
Respiratory or skin sensitization Germ cell mutagenicity	: May cause an allergic skin reaction. : Suspected of causing genetic defects.		
Carcinogenicity	: Not classified		
Reproductive toxicity	: Not classified		

12/16/2024 (Revision date) US - en 7/15

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

STOT-single exposure :	Not classified
Epoxy resin	
STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure :	May cause damage to organs through prolonged or repeated exposure.
Propylene carbonate (108-32-7)	
NOAEL (oral,rat,90 days)	> 5000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Epoxy resin	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard :	Not classified
Propylene carbonate (108-32-7)	
Viscosity, kinematic	No data available in the literature
Epoxy resin	
Viscosity, kinematic	170.94 – 213.675 mm²/s
Reactive diluent	
Viscosity, kinematic	15.2 mm²/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm²/s)'
Symptoms/effects after skin contact : Symptoms/effects after eye contact :	None under normal conditions. Irritation. May cause an allergic skin reaction. Eye irritation. None under normal conditions.
Symptoms/effects after ingestion :	None under normal conditions.

SECTION 12 Ecological information

12.1. Ecotoxicity

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

Hazardous to the aquatic environment, short–term : Harmful to aquatic life.

(acute)

 $\label{thm:long-term} \mbox{Hazardous to the aquatic environment, long-term} \qquad : \mbox{ Toxic to aquatic life with long lasting effects.}$

(chronic)

(GITOTIC)	
Propylene carbonate (108-32-7)	
LC50 - Fish [1]	> 1000 mg/l (EU Method C.1, 96 h, Cyprinus carpio, Semi-static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	> 1000 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 96h - Algae [1]	> 929 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	> 900 mg/l (Equivalent or similar to OECD 201, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
Epoxy resin	
LC50 - Fish [1]	24 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	40 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Epoxy resin		
EC50 72h - Algae [1]	> 110 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)	
EC50 72h - Algae [2]	> 110 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	
ErC50 algae	110 mg/l	
NOEC chronic algae	30 mg/l	
Reactive diluent		
LC50 - Fish [1]	13 mg/l	
EC50 - Crustacea [1]	22 mg/l Source: National Institute of Technology and Evaluation	
EC50 72h - Algae [1]	> 93 mg/l Source: National Institute of Technology and Evaluation	
NOEC chronic algae	29 mg/l	

12.2. Persistence and degradability

EPO-TEK® OG116-31		
Persistence and degradability	Not rapidly degradable	
Propylene carbonate (108-32-7)		
Persistence and degradability	Readily biodegradable in water.	
Biochemical oxygen demand (BOD)	0.046 g O ₂ /g substance	
Chemical oxygen demand (COD)	1.29 g O ₂ /g substance	
Photoinitiator		
Persistence and degradability	Not rapidly degradable	
Epoxy resin		
Persistence and degradability	Biodegradability in soil: no data available, Readily biodegradable in water.	
ThOD	2.16 g O ₂ /g substance	
Epoxy phenol novolac resin		
Persistence and degradability	Biodegradability in soil: no data available.	
Bisphenol A diglycidyl ether resin		
Persistence and degradability	Not rapidly degradable	
Reactive diluent		
Persistence and degradability	Not readily biodegradable in water.	

12.3. Bioaccumulative potential

Propylene carbonate (108-32-7)		
Partition coefficient n-octanol/water (Log Pow)	-0.41 (Weight of evidence approach)	
Bioaccumulative potential	Not bioaccumulative.	
Epoxy resin		
Partition coefficient n-octanol/water (Log Pow)	1.34 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)	

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Epoxy resin		
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
Epoxy phenol novolac resin		
Bioaccumulative potential	No bioaccumulation data available.	
Reactive diluent		
Partition coefficient n-octanol/water (Log Pow)	-0.27 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)	
Bioaccumulative potential	Not bioaccumulative.	

12.4. Mobility in soil

Propylene carbonate (108-32-7)		
Surface tension	No data available in the literature	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.81 (log Koc, QSAR)	
Ecology - soil	Highly mobile in soil.	
Epoxy resin		
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.4195 (log Koc, QSAR)	
Ecology - soil	Low potential for adsorption in soil. Highly mobile in soil.	
Reactive diluent		
Mobility in soil	0.48 Source: Quantitative Structure Activity Relation	
Surface tension	44.4 mN/m (20 °C, 90 %, EU Method A.5: Surface tension)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.1 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)	
Ecology - soil	Highly mobile in soil.	

12.5. Other adverse effects

Ozone : Not classified

Fluorinated greenhouse gases : No

SECTION 13 Disposal considerations

Regional waste regulation : Disposal must be done according to official regulations.

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

Sewage disposal recommendations : Disposal must be done according to official regulations. Product/Packaging disposal recommendations : Disposal must be done according to official regulations.

Additional information : Do not re-use empty containers.

SECTION 14 Transport information

In accordance with DOT / TDG / IMDG / IATA

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

DOT	TDG	IMDG	IATA	
14.1. UN number				
UN3082	UN3082	3082	3082	
14.2. Proper Shipping Name				
Environmentally hazardous substances, liquid, n.o.s. (Epoxy phenol novolac resin)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy phenol novolac resin)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy phenol novolac resin)	Environmentally hazardous substance, liquid, n.o.s. (Epoxy phenol novolac resin)	
14.3. Transport hazard class(es)				
9	9	9	9	
1 1 1 2 2	**************************************	**************************************	**************************************	
14.4. Packing group				
III	III	III	III	
14.5. Environmental hazards				
Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	
No supplementary information availab	ble			

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT

UN-No. (DOT) : UN3082

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

DOT Special Provisions (49 CFR 172.102)

: 8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description "Other regulated substances, liquid or solid, n.o.s.", as appropriate. In addition, for solid materials, special provision B54 applies.

146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination.

173 - An appropriate generic entry may be used for this material.

335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as "Environmentally hazardous substances, solid, n.o.s," UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leak-proof when used as bulk packaging.

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).

T4 - 2.65 178.274(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. TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous

materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the

MAWP.

DOT Packaging Exceptions (49 CFR 173.xxx) : 155
DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 241
DOT Quantity Limitations Passenger aircraft/rail (49 : No Limit

CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49

CFR 175.75)

DOT Vessel Stowage Location

: No Limit

: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

TDG

UN-No. (TDG) : UN3082

12/16/2024 (Revision date) US - en 12/15

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

TDG Special Provisions

- : 16 (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the danger or dangers 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). 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).
 - (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,99 (1) Mixtures of solids that are not dangerous goods and liquids or solids that are UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, or UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, may be offered for transport, handled or transported as UN3077 if there is no visible liquid when the dangerous goods are loaded into a means of containment and during transport.
- (2) These Regulations, except for Parts 1 and 2, do not apply to the offering for transport, handling or transport of less than 450 kg of UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, or less than 450 L of UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, on a road vehicle or a railway vehicle. The dangerous goods must be contained in one or more small means of containment designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no release of the dangerous goods that could endanger public safety.

Explosive Limit and Limited Quantity Index : 5 L
Excepted quantities (TDG) : E1
Emergency Response Guide (ERG) Number : 171

IMDG

Special provision (IMDG) : 274, 335, 969

Limited quantities (IMDG) : 5 L

Excepted quantities (IMDG) : E1

Packing instructions (IMDG) : LP01, P001

Packing provisions (IMDG) : PP1

IBC packing instructions (IMDG) : IBC03

Tank instructions (IMDG) : T4

Tank special provisions (IMDG) : TP1, TP29

EmS-No. (Fire) : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE

EmS-No. (Spillage) : S-F - SPILLAGE SCHEDULE Foxtrot - WATER-SOLUBLE MARINE POLLUTANTS

Stowage category (IMDG) : A

IATA

Special provision (IATA) : A97, A158, A197, A215

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y964
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 964
PCA max net quantity (IATA) : 450L
CAO packing instructions (IATA) : 964
CAO max net quantity (IATA) : 450L

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

ERG code (IATA) : 9L

SECTION 15 Regulatory information

15.1. 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

Propylene carbonate (108-32-7)

Listed on the Canadian DSL (Domestic Substances List)

Photoinitiator

Listed on the Canadian NDSL (Non-Domestic Substances List)

Epoxy resin

Listed on the Canadian DSL (Domestic Substances List)

Epoxy phenol novolac resin

Listed on the Canadian DSL (Domestic Substances List)

Bisphenol A diglycidyl ether resin

Listed on the Canadian DSL (Domestic Substances List)

Reactive diluent

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Propylene carbonate (108-32-7)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Bisphenol A diglycidyl ether resin

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. 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

SECTION 16 Other information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Revision date : 12/16/2024 Issue date : 6/10/2024

Full text of hazard classes and H-statements		
H302	Harmful if swallowed	
H312	Harmful in contact with skin	
H315	Causes skin irritation	
H317	May cause an allergic skin reaction	
H319	Causes serious eye irritation	
H332	Harmful if inhaled	
H336	May cause drowsiness or dizziness	
H341	Suspected of causing genetic defects.	
H373	May cause damage to organs through prolonged or repeated exposure	
H400	Very toxic to aquatic life	
H402	Harmful to aquatic life	
H410	Very toxic to aquatic life with long lasting effects	
H411	Toxic 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.