High Solids Epoxy Primer Cure

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Issue date: 07/11/2023 Revision date: 07/11/2023 Version: 2.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : High Solids Epoxy Primer Cure

Product code : 4500C215

1.2. Recommended use and restrictions on use

Recommended use : Product for industrial use only

Restrictions on use : Consumer uses: Private households (= general public = consumers)

1.3. Supplier

Manufacturer
Tempo Aerospace Inc.
205 Fenmar Drive
Toronto, ON M9L 2X4 - Canada
F 416.746.2235
www.tempo-aerospace.com

1.4. Emergency telephone number

Emergency number : Tempo Aerospace Inc. (416)746-2233; CANUTEC: +01 (613) 996-6666

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

H226	Flammable liquids Category 3	Flammable liquid and vapor
H315	Skin corrosion/irritation Category 2	Causes skin irritation
H318	Serious eye damage/eye irritation Category 1	Causes serious eye damage
H340	Germ cell mutagenicity Category 1B	May cause genetic defects
H350	Carcinogenicity Category 1B	May cause cancer
H336	Specific target organ toxicity – Single exposure, Category 3, Narcosis	May cause drowsiness or dizziness
H335	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	May cause respiratory irritation

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) : H226 - Flammable liquid and vapor
H315 - Causes skin irritation
H318 - Causes serious eye damage
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H340 - May cause genetic defects
H350 - May cause cancer

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/Bond container and receiving equipment.

P241 - Use explosion-proof electrical/ventilating/lighting equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
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.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P310 - Immediately call a poison center or doctor.
P312 - Call a poison center or doctor if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use media other than water to extinguish.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
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

No additional information available

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
1-butanol	(CAS-No.) 71-36-3	3 – 25	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H336 STOT SE 3, H335
heptan-2-one	(CAS-No.) 110-43-0	15 – 25	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332
solvent naphtha (petroleum), light aromatic	(CAS-No.) 64742-95-6	0.1 – 0.5	Flam. Liq. 2, H225 Muta. 1B, H340 Carc. 1B, H350 Asp. Tox. 1, H304

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 : IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.

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

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

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

Symptoms/effects : May cause drowsiness or dizziness.

Symptoms/effects after inhalation	:	May cause respiratory irritation.
Symptoms/effects after skin contact	:	Irritation.
Symptoms/effects after eye contact	:	Serious damage to eyes.

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

Fire hazard	:	Flammable liquid and vapor.

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	:	No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing 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. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

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.

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. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.
Hygiene measures	:	Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. 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

Technical measures	:	Ground/bond container and receiving equipment.
Storage conditions	:	Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

solvent naphtha (petroleum), light aromatic (64742-95-6)		
Not applicable		

heptan-2-one (110-43-0)		
ACGIH	Local name	Methyl n-amyl ketone
ACGIH	ACGIH OEL TWA [ppm]	50 ppm
ACGIH	Remark (ACGIH)	TLV® Basis: Eye & skin irr
ACGIH	Regulatory reference	ACGIH 2023
OSHA	OSHA PEL (TWA) [1]	465 mg/m³
OSHA	OSHA PEL (TWA) [2]	100 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

1-butanol (71-36-3)		
ACGIH	Local name	n-Butanol
ACGIH	ACGIH OEL TWA [ppm]	20 ppm
ACGIH	Remark (ACGIH)	TLV® Basis: Eye & URT irr
ACGIH	Regulatory reference	ACGIH 2023
OSHA	OSHA PEL (TWA) [1]	300 mg/m³
OSHA	OSHA PEL (TWA) [2]	100 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

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:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing. Avoid contact with skin

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. [In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Color : amber

Odor : Alcohol.

Odor threshold : No data available

pH : No data available

Melting point	:	Not applicable
Freezing point	:	No data available
Boiling point	:	> 35 °C
Flash point	:	≈ 38 °C
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
Density	:	0.9284 g/cm³
Solubility	:	No data available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other information

VOC content : 374.5897 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapor.

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

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

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

solvent naphtha (petroleum), light aromatic (64742-95-6)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat [ppm]	3670 ppm/4h

heptan-2-one (110-43-0)	
LD50 oral rat	1600 mg/kg body weight (Rat, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LD50 dermal rabbit	10313 mg/kg

heptan-2-one (110-43-0)	
LC50 Inhalation - Rat	> 16.7 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))

1-butanol (71-36-3)	
LD50 oral rat	2292 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	3430 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 17.76 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, (maximum achievable concentration), Inhalation (vapours), 14 day(s))
LC50 Inhalation - Rat [ppm]	8000 ppm/4h

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : May cause genetic defects.
Carcinogenicity : May cause cancer.

solvent naphtha (petroleum), light aromatic (64742-95-6)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
STOT-single exposure : May cause drowsiness or dizziness. May cause respiratory irritation.

1-butanol (71-36-3)	
STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.

STOT-repeated exposure : Not classified

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

Symptoms/effects : May cause drowsiness or dizziness.
Symptoms/effects after inhalation : May cause respiratory irritation.
Symptoms/effects after skin contact : Irritation.
Symptoms/effects after eye contact : Serious damage to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

heptan-2-one (110-43-0)	
LC50 - Fish [1]	131 mg/l (EPA OPP 72-1, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	> 90.1 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, GLP)
ErC50 algae	98.2 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

1-butanol (71-36-3)	
LC50 - Fish [1]	1376 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Pimephales promelas, Static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	1328 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 algae	225 mg/l (OECD 201: Alga, Growth Inhibition Test, 96 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
NOEC (chronic)	4.1 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

12.2. Persistence and degradability

heptan-2-one (110-43-0)	
Persistence and degradability	Readily biodegradable in water.

1-butanol (71-36-3)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.1 – 1.92 g O_2/g substance
Chemical oxygen demand (COD)	2.46 g O_2/g substance
ThOD	2.59 g O_2/g substance

12.3. Bioaccumulative potential

solvent naphtha (petroleum), light aromatic (64742-95-6)	
Partition coefficient n-octanol/water (Log Pow)	2.1 – 6

heptan-2-one (110-43-0)	
Partition coefficient n-octanol/water (Log Pow)	2.26 (Experimental value, EU Method A.8: Partition Coefficient, 30 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

1-butanol (71-36-3)	
Partition coefficient n-octanol/water (Log Pow)	1 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

heptan-2-one (110-43-0)	
Surface tension	59.1 mN/m (22 °C, 0.1 %, EU Method A.5: Surface tension)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.45 (log Koc, EU Method C.19, Experimental value, GLP)
Ecology - soil	Highly mobile in soil.

1-butanol (71-36-3)	
Surface tension	69.9 mN/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.54 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil. May be harmful to plant growth, blooming and fruit formation.

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.

Additional information : Flammable vapors may accumulate in the container.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description (DOT) : UN1263 Paint related material, 3, III

UN-No.(DOT) : UN1263

Proper Shipping Name (DOT) : Paint related material

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Packing group (DOT) : III - Minor Danger

Hazard labels (DOT) : 3 - Flammable liquid

Emergency Response Guide (ERG) Number : 128
Other information : No supplementary information available.

Transportation of Dangerous Goods

Transport document description (TDG) : UN1263 PAINT RELATED MATERIAL, 3, III
UN-No. (TDG) : UN1263
Proper Shipping Name (TDG) : PAINT RELATED MATERIAL
TDG Primary Hazard Classes : 3 - Class 3 - Flammable Liquids
Packing group (TDG) : III - Minor Danger
Explosive Limit and Limited Quantity Index : 5 L
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 60 L

Transport by sea

Transport document description (IMDG) : UN 1263 PAINT RELATED MATERIAL, 3, III
UN-No. (IMDG) : 1263
Proper Shipping Name (IMDG) : PAINT RELATED MATERIAL
Class (IMDG) : 3 - Flammable liquids
Packing group (IMDG) : III - substances presenting low danger
Limited quantities (IMDG) : 5 L

Air transport

Transport document description (IATA) : UN 1263 Paint related material, 3, III
UN-No. (IATA) : 1263
Proper Shipping Name (IATA) : Paint related material
Class (IATA) : 3 - Flammable Liquids
Packing group (IATA) : III - Low danger

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, except for:

Bis((dimethylamino)methyl)phenol	CAS-No. 71074-89-0	< 0.5%

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

1-butanol	CAS-No. 71-36-3	3 – 25%

1-butanol (71-36-3)	
CERCLA RQ	5000 lb

15.2. International regulations

CANADA

2,6-dimethyl-4-heptanone (108-83-8)
Listed on the Canadian DSL (Domestic Substances List)

2-Heptanone, 4,6-dimethyl- (19549-80-5)
Listed on the Canadian DSL (Domestic Substances List)

solvent naphtha (petroleum), light aromatic (64742-95-6)
Listed on the Canadian DSL (Domestic Substances List)

heptan-2-one (110-43-0)
Listed on the Canadian DSL (Domestic Substances List)

Bis((dimethylamino)methyl)phenol (71074-89-0)
Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)
Listed on the Canadian DSL (Domestic Substances List)

1-butanol (71-36-3)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations
No additional information available

National regulations
No additional information available

15.3. US State regulations

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 07/11/2023

Full text of H-phrases:

H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H318	Causes serious eye damage
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H340	May cause genetic defects
H350	May cause cancer

Tempo SDS GHS US

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.