

PRO-SET® TLG-625-H Hardener

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Date of issue: 06/01/2015

Revision date: 01/25/2019

Version: TLG-625-H-2019a

SECTION 1: Identification

Identification

Product form : Mixtures
Product name : PRO-SET® TLG-625-H Hardener
Product code : TLG-625-H, TLG-625-H-1, TLG-625-H-2, TLG-625-H-4

Relevant identified uses of the substance or mixture and uses advised against

Recommended use : Curing agent for epoxy resins

Details of the supplier of the safety data sheet

Manufacturer

Gougeon Brothers, Inc
100 Patterson Ave.
Bay City, MI 48706 - U.S.A.
T 888-377-6738 or 989-684-7286
www.prosetepoxy.com

Emergency telephone number

Emergency number : CHEMTREC 1 (800) 424-9300
CHEMTREC International +1 (703) 527-3887 24 hr

SECTION 2: Hazard(s) identification

Classification of the substance or mixture

Acute Tox. 4 (Inhalation)
Skin Corr. 1C
Eye Dam. 1
Skin Sens. 1
Aquatic Acute 2
Aquatic Chronic 2

Label elements

Hazard pictograms (GHS)



GHS05

GHS07

GHS09

Signal word (GHS)

Danger

Hazard statements (GHS)

Harmful if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Toxic to aquatic life. Toxic to aquatic life with long lasting effects

Precautionary statements (GHS)

Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/ eye protection/ face protection. If swallowed: rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Take off contaminated clothing and wash it before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. If skin irritation or rash occurs: Get medical advice/attention. Collect spillage. Store locked up. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

Other hazards

No additional information available.

Unknown acute toxicity

No additional information available.

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SECTION 3: Composition/information on ingredients

Substance

Not applicable

Mixtures

Name	Product identifier	HPR %
Fatty acids, C18-unsaturated, dimers, polymers with tall-oil fatty acids and triethylenetetramine	(CAS No) 68082-29-1	15 - 40
Benzyl alcohol	(CAS No) 100-51-6	10 - 30
Glass, oxide, chemicals	(CAS No) 65997-17-3	10 - 30
Formaldehyde, oligomeric reaction products with phenol and m-phenylenebis(methylamine)	(CAS No) 57214-10-5	10 - 30
1,3-Benzenedimethanamine	(CAS No) 1477-55-0	3 - 10
Silica, amorphous, fumed, crystalline-free	(CAS No) 112945-52-5	1 - 5
Triethylenetetramine	(CAS No) 112-24-3	1 - 5
Diethylenetriamine-bisphenol A-epichlorohydrin polymer	(CAS No) 31326-29-1	1 - 5

The exact chemical identity and/or exact percentage (concentration) of each ingredient may be held as confidential business information (CBI). Any ingredient not disclosed in this section may have been determined not to be hazardous to health or the environment, or it may be present at a level below its disclosure threshold.

SECTION 4: First aid measures

Description of first aid measures

- First-aid measures after inhalation** : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
- First-aid measures after skin contact** : IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor/physician.
- First-aid measures after eye contact** : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention immediately.
- First-aid measures after ingestion** : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation** : Harmful if inhaled. May cause respiratory irritation.
- Symptoms/injuries after skin contact** : Causes severe burns. Symptoms may include redness, pain, blisters. Repeated exposure to this material can result in absorption through skin causing significant health hazard. May cause an allergic skin reaction.
- Symptoms/injuries after eye contact** : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
- Symptoms/injuries after ingestion** : May be harmful if swallowed. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. May cause stomach distress, nausea or vomiting.

Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Foam. Carbon dioxide. Dry chemical.
- Unsuitable extinguishing media** : Do not use a heavy water stream.

Special hazards arising from the substance or mixture

- Fire hazard** : Products of combustion may include, and are not limited to: oxides of carbon, nitrogen oxides, amines, ammonia, nitric acid, nitrosamines. When mixed with sawdust, wood chips, or other cellulosic material, spontaneous combustion can occur under certain conditions. Heat is generated as the air oxidizes the amine. If the heat is not dissipated quickly enough, it can ignite the sawdust.
- Reactivity** : No dangerous reaction known under conditions of normal use.
- Advice for firefighters**
- Protection during firefighting** : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

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SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

For non-emergency personnel

No additional information available.

For emergency responders

No additional information available.

Environmental precautions

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and material for containment and cleaning up

For containment

: Stop leak if safe to do so. Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE). Do not absorb in sawdust, paper, cloth or other combustible absorbents.

Methods for cleaning up

: Scoop up material and place in a disposal container. Provide ventilation.

Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

Precautions for safe handling

Precautions for safe handling

: Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. When mixed with epoxy resin this product causes an exothermic reaction, which in large masses, can produce enough heat to damage or ignite surrounding materials and emit fumes and vapors that vary widely in composition and toxicity.

Hygiene measures

: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking. Contaminated work clothing should not be allowed out of the workplace.

Conditions for safe storage, including any incompatibilities

Storage conditions

: Keep out of the reach of children. Keep container tightly closed. Keep only in the original container in a cool, well-ventilated place. Protect from moisture. Storage temperature : 40°F (4°C) - 90°F (32°C).

SECTION 8: Exposure controls/personal protection

Control parameters

Fatty acids, C18-unsaturated, dimers, polymers with tall-oil fatty acids and triethylenetetramine (68082-29-1)		
Not applicable		
Benzyl alcohol (100-51-6)		
ACGIH	ACGIH WEEL (ppm)	10 ppm
Glass, oxide, chemicals (65997-17-3)		
Supplier WEEL	WEEL (mg/m ³)	10 mg/m ³
Formaldehyde, oligomeric reaction products with phenol and m-phenylenebis(methylamine) (57214-10-5)		
Not applicable		
1,3-Benzenedimethanamine (1477-55-0)		
OSHA	OSHA Ceiling (mg/m ³) Table Z 1A	0.1 mg/m ³
ACGIH	ACGIH Ceiling (mg/m ³)	0.1 mg/m ³
NIOSH	NIOSH REL (ceiling) (mg/m ³)	0.1 mg/m ³
Silica, amorphous, fumed, crystalline-free (112945-52-5)		
ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³ (Inhalable) 3 mg/m ³ (Respirable)

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Silica, amorphous, fumed, crystalline-free (112945-52-5)		
OSHA	OSHA PEL (TWA) (mg/m ³)	6 mg/m ³ (Amorphous silica) 15 mg/m ³ (Total dust) 5 mg/m ³ (Respirable fraction)
Triethylenetetramine (112-24-3)		
ACGIH	ACGIH WEEL (ppm)	1 ppm
ACGIH	ACGIH WEEL (mg/m ³)	6 mg/m ³
Diethylenetriamine-bisphenol A-epichlorohydrin polymer (31326-29-1)		
Not applicable		

Exposure controls

Appropriate engineering controls	: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
Hand protection	: Wear chemically resistant protective gloves.
Eye protection	: Wear approved eye protection (properly fitted dust- or splash-proof chemical safety goggles) and face protection (face shield).
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Environmental exposure controls	: Maintain levels below Community environmental protection thresholds.
Other information	: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Paste
Colour	: Light brown
Odour	: Ammonia
Odour threshold	: No data available
pH	: 10 - 12.5 Estimated based on ingredient data.
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 400 °F (204 °C) Estimated based on similar product.
Flash point	: > 200 °F (93 °C) Estimated based similar product.
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: < 1 mm Hg @ 68 °F (20 °C) Estimated based on ingredient data
Relative vapour density at 20 °C	: No data available
Relative density	: 0.49
Solubility	: No data available
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Other information	
VOC content	: TLG-625-R / TLG-625-H: 3.77 g/L (0.03 lbs/gal)
Bulk density	: 4.09 lb/gal (0.49 kg/L)

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SECTION 10: Stability and reactivity

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal storage conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use. A mass of more than one pound of product plus an epoxy resin will cause irreversible polymerization with significant heat buildup and pressure.
Conditions to avoid	: Heat. Incompatible materials.
Incompatible materials	: Acids. Oxidizing materials. Halogenated compounds.
Hazardous decomposition products	: May include, and are not limited to: oxides of carbon, nitrogen oxides, amines, ammonia, nitric acid, nitrosamines.

SECTION 11: Toxicological information

Information on toxicological effects

Benzyl alcohol (100-51-6)	
LD50 oral rat	1620 mg/kg
LC50 inhalation rat	> 4.18 mg/l/4h

1,3-Benzenedimethanamine (1477-55-0)	
LD50 oral rat	980 mg/kg
LD50 dermal rabbit	2000 mg/kg
LC50 inhalation rat	1.34 mg/l/4h

Silica, amorphous, fumed, crystalline-free (112945-52-5)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Triethylenetetramine (112-24-3)	
LD50 oral rat	1716 mg/kg
LD50 dermal rabbit	1465 mg/kg

Diethylenetriamine-bisphenol A-epichlorohydrin polymer (31326-29-1)	
LD50 oral rat	1620 mg/kg

Acute toxicity (oral)	: Not classified.
Acute toxicity (dermal)	: Not classified.
Acute toxicity (inhalation)	: Inhalation: Harmful if inhaled.
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.
Carcinogenicity	: Not classified.

Silica, amorphous, fumed, crystalline-free (112945-52-5)	
IARC group	3 - Not classifiable

Reproductive toxicity	: Not classified.
Specific target organ toxicity (single exposure)	: Not classified.
Specific target organ toxicity (repeated exposure)	: Not classified.
Aspiration hazard	: Not classified.
Symptoms/injuries after inhalation	: Harmful if inhaled. May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes severe burns. Symptoms may include redness, pain, blisters. Repeated exposure to this material can result in absorption through skin causing significant health hazard. May cause an allergic skin reaction.
Symptoms/injuries after eye contact	: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
Symptoms/injuries after ingestion	: May be harmful if swallowed. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. May cause stomach distress, nausea or vomiting.

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Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

Toxicity

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

Benzyl alcohol (100-51-6)	
LC50 fish 1	460 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	23 mg/l (Exposure time: 48 h - Species: water flea)
LC50 fish 2	10 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

Triethylenetetramine (112-24-3)	
LC50 fish 1	570 mg/l (Exposure time: 96 h - Species: Poecilia reticulata [semi-static])
EC50 Daphnia 1	31.1 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	495 mg/l (Exposure time: 96 h - Species: Pimephales promelas)

Persistence and degradability

PRO-SET® TLG-625-H Hardener	
Persistence and degradability	Not established.

Bioaccumulative potential

PRO-SET® TLG-625-H Hardener	
Bioaccumulative potential	Not established.

Benzyl alcohol (100-51-6)	
Partition coefficient n-octanol/water	1.1

Triethylenetetramine (112-24-3)	
BCF fish 1	(no bioaccumulation expected)
Partition coefficient n-octanol/water	-1.4

Mobility in soil

No additional information available.

Other adverse effects

Effect on the global warming : No known effects from this product.

Ingredient	CAS#	Ecotoxicity Classification Information
Fatty acids, C18-unsaturated, dimers, polymers with tall-oil fatty acids and triethylenetetramine	68082-29-1	Chronic Aquatic Cat. 2
Benzyl alcohol	100-51-6	No data available
Glass, oxide, chemicals	65997-17-3	Not classified
Formaldehyde, oligomeric reaction products with phenol and m-phenylenebis(methylamine)	57214-10-5	Acute Aquatic Cat. 1; Chronic Aquatic Cat. 1
1,3-Benzenedimethanamine	1477-55-0	Acute Aquatic Cat. 3; Chronic Aquatic Cat. 3
Silica, amorphous, fumed, crystalline-free	112945-52-5	Not classified
Triethylenetetramine	112-24-3	Chronic Aquatic Cat. 3
Diethylenetriamine-bisphenol A-epichlorohydrin polymer	31326-29-1	No data available

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

Waste treatment methods

Product/Packaging disposal recommendations : Avoid release to the environment. This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

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SECTION 14: Transport information

Department of Transportation (DOT) and Transportation of Dangerous Goods (TDG)

In accordance with DOT/TDG

UN-No.(DOT/TDG)	: UN3259
Proper Shipping Name (DOT/TDG)	: Polyamines, solid, corrosive n.o.s. (1,3-Benzenedimethanamine)
Class (DOT/TDG)	: 8
Packing group (DOT/TDG)	: III
Marine pollutant	: No

Transport by sea

In accordance with IMDG

UN-No. (IMDG)	: 3259
Proper Shipping Name (IMDG)	: POLYAMINES, SOLID, CORROSIVE, N.O.S. (1,3-Benzenedimethanamine)
Class (IMDG)	: 8
Packing group (IMDG)	: III
EmS Number	: F-A, S-B
Marine pollutant	: Yes

Transport by sea

In accordance with IATA

UN-No. (IATA)	: 3259
Proper Shipping Name (IATA)	: Polyamines, solid, corrosive, n.o.s. (1,3-Benzenedimethanamine)
Class (IATA)	: 8
Packing group (IATA)	: III
Marine pollutant	: Yes

SECTION 15: Regulatory information

Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

Fatty acids, C18-unsaturated, dimers, polymers with tall-oil fatty acids and triethylenetetramine (68082-29-1)

EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e, Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C)).
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Formaldehyde, oligomeric reaction products with phenol and m-phenylenebis(methylamine) (57214-10-5)

EPA TSCA Regulatory Flag	P - P - indicates a commenced PMN substance. XU - XU - indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e, Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C)).
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Diethylenetriamine-bisphenol A-epichlorohydrin polymer (31326-29-1)

EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e, Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C)).
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International regulations

No additional information available

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

Benzyl alcohol (100-51-6)

U.S. - Pennsylvania - RTK (Right to Know) List

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1,3-Benzenedimethanamine (1477-55-0)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Triethylenetetramine (112-24-3)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Date of issue : 06/01/2015

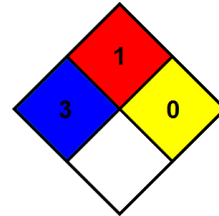
Revision date : 01/25/2019

Other information : None.

NFPA health hazard : 3

NFPA fire hazard : 1

NFPA reactivity : 0



HMIS III Rating

Health : 3 Serious Hazard

Flammability : 1 Slight Hazard

Physical : 0 Minimal Hazard

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