3610-B

Safety Data Sheet

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

Date of issue: 01/14/2016

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : 3610-B

Product code : 3610-B

Other means of identification : 3610-B/1, 3610-B/5, 3610-B/55

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

No additional information available

1.3. Details of the supplier of the safety data sheet

Protective Industrial Polymers
7875 Bliss Parkway
North Ridgeville, Ohio 44039 - USA-Ohio
T 440-327-0015
www.protectpoly.com

1.4. Emergency telephone number

Emergency number : Chemtrec: 800427-9300 (Outside USA) 703-527-3887

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute toxicity (oral), Category 4	H302
Skin corrosion/irritation, Category 1C	H314
Serious eye damage/eye irritation, Category 1	H318
Hazardous to the aquatic environment — Acute Hazard, Category 3	H402
Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411

Full text of H statements : see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :

GHS05 GHS07 GHS09

Signal word (GHS-US) : Danger

Contains : O,O'-Bis(2-aminopropyl)polypropyleneglycol; 1,3-bis(aminomethyl)benzene; (1,6-Hexanediamine,C,C,C-trimethyl-); 1-Piperazine ethanamine; 2,4,6-tris(dimethylaminomethyl)phenol

Hazard statements (GHS-US) :
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H402 - Harmful to aquatic life
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) :
P260 - Do not breathe vapours
P264 - Wash hands, forearms and face thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P273 - Avoid release to the environment
P280 - Wear protective clothing
P301+P312 - If swallowed: Call a doctor if you feel unwell
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
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 doctor
P321 - Specific treatment (see on this label)

P330 - Rinse mouth
P363 - Wash contaminated clothing before reuse
P391 - Collect spillage
P405 - Store locked up
P501 - Dispose of contents/container to in accordance with local regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
O,O'-Bis(2-aminopropyl)polypropyleneglycol	(CAS No) 9046-10-0	48 - 80	Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
1-Piperazine ethanamine	(CAS No) 140-31-8	5 - 15	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Corr. 1A, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412
4-tert-butylphenol	(CAS No) 98-54-4	0 - 5	Skin Irrit. 2, H315 Eye Dam. 1, H318
(1,6-Hexanediamine,C,C,C-trimethyl-)	(CAS No) 25620-58-0	0 - 5	Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314
2,4,6-tris(dimethylaminomethyl)phenol	(CAS No) 90-72-2	0 - 5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315
1,3-bis(aminomethyl)benzene	(CAS No) 1477-55-0	0 - 1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1A, H314

Full text of 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, both acute and delayed

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

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

Symptoms/injuries after ingestion : Burns.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustible liquid.

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

5.3. Advice for firefighters

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. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. Do not breathe vapours.

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. 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. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapours.

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

O,O'-Bis(2-aminopropyl)polypropyleneglycol (9046-10-0)

Not applicable

4-tert-butylphenol (98-54-4)

Not applicable

1,3-bis(aminomethyl)benzene (1477-55-0)

ACGIH	ACGIH Ceiling (mg/m³)	0.1 mg/m³ (m-Xylene alfa,alfa'-diamine; USA; Momentary value; TLV - Adopted Value)
ACGIH	Remark (ACGIH)	Eye, skin, & GI irr

(1,6-Hexanediamine,C,C,C-trimethyl-) (25620-58-0)

Not applicable

1-Piperazine ethanamine (140-31-8)

Not applicable

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)

Not applicable

8.2. Exposure controls

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

Hand protection	:	Protective gloves.
Eye protection	:	Safety glasses.
Skin and body protection	:	Wear suitable protective clothing.
Respiratory protection	:	In case of insufficient ventilation, wear suitable respiratory equipment.
Environmental exposure controls	:	Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Colourless
Odour	:	Ammonical
Odour threshold	:	No data available
pH	:	11
Melting point	:	Not applicable
Freezing point	:	No data available
Boiling point	:	449.6 °F
Flash point	:	262 °F
Relative evaporation rate (butylacetate=1)	:	No data available
Flammability (solid, gas)	:	No data available
Explosive limits	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Vapour pressure	:	No data available
Relative density	:	No data available
Relative vapour density at 20 °C	:	No data available
Solubility	:	Water: Solubility in water of component(s) of the mixture : • 4-tert-butylphenol: 0.06 g/100ml (25 °C, insoluble) • 1,3-bis(aminomethyl)benzene: Complete • 1-Piperazine ethanamine: > 10 g/100ml (20 °C, soluble) • 2,4,6-tris(dimethylaminomethyl)phenol: > 16 g/100ml
Log Pow	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available

9.2. Other information

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

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: Harmful if swallowed.

3610-B	
ATE US (oral)	500.000 mg/kg bodyweight

4-tert-butylphenol (98-54-4)	
LD50 oral rat	> 2000 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LC50 inhalation rat (mg/l)	> 5.6 mg/l/4h (Rat; Experimental value)
ATE US (oral)	3370.000 mg/kg bodyweight
ATE US (dermal)	2621.000 mg/kg bodyweight

1,3-bis(aminomethyl)benzene (1477-55-0)	
LD50 oral rat	930 mg/kg (Rat)
LD50 dermal rabbit	2000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	2.4 mg/l/4h (Rat)
ATE US (oral)	930.000 mg/kg bodyweight
ATE US (dermal)	2000.000 mg/kg bodyweight
ATE US (vapours)	2.400 mg/l/4h
ATE US (dust,mist)	2.400 mg/l/4h

(1,6-Hexanediamine,C,C,C-trimethyl-) (25620-58-0)	
LD50 oral rat	< 910 mg/kg (Rat; Literature study)
ATE US (oral)	500.000 mg/kg bodyweight

1-Piperazine ethanamine (140-31-8)	
ATE US (oral)	1470.000 mg/kg bodyweight
ATE US (dermal)	880.000 mg/kg bodyweight

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
LD50 oral rat	1200 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 2169 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	> 2000 mg/kg (Rat; Literature study; Other; >1 ml/kg; Rat; Experimental value)
ATE US (oral)	1200.000 mg/kg bodyweight

Skin corrosion/irritation : Causes severe skin burns and eye damage.
pH: 11

Serious eye damage/irritation : Causes serious eye damage.
pH: 11

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

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 skin contact : Burns. May cause an allergic skin reaction.

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

Symptoms/injuries after ingestion : Burns.

SECTION 12: Ecological information

12.1. Toxicity

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

4-tert-butylphenol (98-54-4)	
EC50 Daphnia 1	3.9 mg/l (EC50; 48 h)
LC50 fish 2	5.14 mg/l (LC50; 96 h)
Threshold limit algae 2	11.2 mg/l (EC50; 72 h)

1,3-bis(aminomethyl)benzene (1477-55-0)	
EC50 Daphnia 1	16 mg/l (EC50; 48 h)
LC50 fish 2	> 100 mg/l (LC50; 96 h)
Threshold limit algae 1	12 mg/l (EC50; 72 h)

(1,6-Hexanediamine,C,C,C-trimethyl-) (25620-58-0)	
LC50 fish 1	172 mg/l (LC50; 48 h; Leuciscus idus; Static system)
EC50 Daphnia 1	31.5 mg/l (EC50; 24 h; Daphnia magna)
Threshold limit algae 1	29.5 mg/l (EC50; 72 h; Scenedesmus subspicatus)

1-Piperazine ethanamine (140-31-8)	
LC50 fish 1	> 100 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Oncorhynchus mykiss; Semi-static system; Fresh water; Experimental value)
EC50 Daphnia 1	58 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system)
Threshold limit algae 2	> 1000 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Selenastrum capricornutum; Fresh water)

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
EC50 Daphnia 2	41.3 mg/l (LC50; 48 h; Daphnia magna)
Threshold limit algae 2	84 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Scenedesmus subspicatus; Static system; Fresh water; Experimental value)

12.2. Persistence and degradability

4-tert-butylphenol (98-54-4)	
Persistence and degradability	Readily biodegradable in water. Low potential for mobility in soil. Photolysis in the air.
ThOD	2.77 g O_2/g substance

1,3-bis(aminomethyl)benzene (1477-55-0)	
Persistence and degradability	Not readily biodegradable in water.

(1,6-Hexanediamine,C,C,C-trimethyl-) (25620-58-0)	
Persistence and degradability	Not readily biodegradable in water. No (test)data on mobility of the substance available. Photodegradation in the air.

1-Piperazine ethanamine (140-31-8)	
Persistence and degradability	Not readily biodegradable in water. Low potential for mobility in soil.
Chemical oxygen demand (COD)	0.56 g O_2/g substance

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
Persistence and degradability	Not readily biodegradable in water. Highly mobile in soil. Low potential for adsorption in soil.

12.3. Bioaccumulative potential

4-tert-butylphenol (98-54-4)	
BCF fish 1	120 (BCF; 3 h)
BCF fish 2	20 - 88 (BCF)
BCF other aquatic organisms 1	34 (BCF; 24 h; Chlorella sp.)
BCF other aquatic organisms 2	240 (BCF; 5 h; Bacteria)
Log Pow	3 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 23 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

1,3-bis(aminomethyl)benzene (1477-55-0)	
BCF fish 1	< 2.7 (BCF)
Log Pow	0.15
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

(1,6-Hexanediamine,C,C,C-trimethyl-) (25620-58-0)	
Log Pow	0.7 (Literature)

(1,6-Hexanediamine,C,C,C-trimethyl-) (25620-58-0)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

1-Piperazine ethanamine (140-31-8)	
BCF fish 1	<= >0.3<=6.3,BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; >4<=6 weeks; Cyprinus carpio; Flow-through system; Fresh water; Read-across
Log Pow	-1.48 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
Log Pow	0.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

4-tert-butylphenol (98-54-4)	
Log Koc	log Koc,3.1; QSAR

1-Piperazine ethanamine (140-31-8)	
Log Koc	log Koc,4.57; Read-across; GLP

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
Log Koc	Koc,SRC PCKOCWIN v2.0; 20.98; QSAR; log Koc; 1.32; Calculated value

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN3066 Paint, 8, III

UN-No.(DOT) : UN3066

Proper Shipping Name (DOT) : Paint

Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136

Hazard labels (DOT) : 8 - Corrosive

Packing group (DOT) : III - Minor Danger

Dangerous for the environment : Yes

Marine pollutant : Yes

DOT Packaging Non Bulk (49 CFR 173.xxx) : 173

DOT Packaging Bulk (49 CFR 173.xxx) : 241

DOT Special Provisions (49 CFR 172.102)	:	B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks 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)	:	154
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	60 L
DOT Vessel Stowage Location	:	A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel
DOT Vessel Stowage Other	:	40 - Stow ‘‘clear of living quarters’’
Emergency Response Guide (ERG) Number	:	153
Other information	:	No supplementary information available.

TDG

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

3610-B	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard

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

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

3610-B	
WHMIS Classification	Class E - Corrosive Material

EU-Regulations

No additional information available

National regulations

No additional information available

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

1,3-bis(aminomethyl)benzene (1477-55-0)
U.S. - New Jersey - Right to Know Hazardous Substance List

(1,6-Hexanediamine,C,C,C-trimethyl-) (25620-58-0)
U.S. - New Jersey - Right to Know Hazardous Substance List

1-Piperazine ethanamine (140-31-8)
U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Other information : Disclaimer: This SDS to the best of our knowledge conforms to the requirements of OSHA 20 CFR 1910.1200 and summarizes the health and safety hazard information and general guidance on how to safely handle the material at the date of issue. Each user must review the SDS in the context of how the product will be handled and used in the workplace.

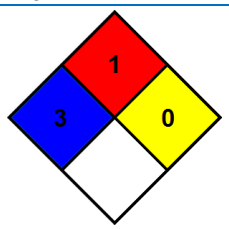
Full text of H-statements:

H227	Combustible liquid
H302	Harmful if swallowed
H311	Toxic in contact with skin
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
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

NFPA health hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA fire hazard : 1 - Must be preheated before ignition can occur.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS US (GHS HazCom 2012)

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