1000ST-B

Safety Data Sheet

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

Date of issue: 09/01/2015

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : 1000ST-B

Product code : 1000ST-B

Other means of identification : 1000ST-B/1, 1000ST-B/5,1000ST-B/55, 1000ST-B/HG

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 1A	H314
Sensitisation — Skin, Category 1	H317
Specific target organ toxicity — Repeated exposure, Category 1	H372

Full text of H statements : see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :

GHS05 GHS07 GHS08

Signal word (GHS-US) : Danger

Contains : 1-Piperazine ethanamine; 4-(2,4-dimethylheptan-3-yl)phenol; Phenol,4-nonyl-,branched; Benzenemethanol; silicon dioxide, amorphous

Hazard statements (GHS-US) :
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H372 - Causes damage to organs through prolonged or repeated exposure (oral)

Precautionary statements (GHS-US) :
P260 - Do not breathe vapours
P261 - Avoid breathing vapours
P264 - Wash hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P272 - Contaminated work clothing must not be allowed out of the workplace
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
P302+P352 - If on skin: Wash with plenty of soap
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 if symptoms persist

P314 - Get medical advice/attention if you feel unwell
P321 - Specific treatment (see a doctor if symptoms do not go away. on this label)
P330 - Rinse mouth
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P363 - Wash contaminated clothing before reuse
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	25 - 50	Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
4-(2,4-dimethylheptan-3-yl)phenol	(CAS No) 25154-52-3	15 - 35	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Phenol,4-nonyl-,branched	(CAS No) 84852-15-3	20 - 30	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
1-Piperazine ethanamine	(CAS No) 140-31-8	5 - 20	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	5 - 15	Skin Irrit. 2, H315 Eye Dam. 1, H318
silicon dioxide, amorphous	(CAS No) 7631-86-9	0 - 10	STOT RE 1, H372
Benzenemethanol	(CAS No) 100-51-6	0 - 5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2A, H319 Aquatic Acute 2, H401

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.

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 : Alcohol resistant foam, water, water fog, CO2, dry chemical, dry sand, limestone powder.

5.2. Special hazards arising from the substance or mixture

Fire hazard : No data available on direct fire hazard.

Explosion hazard : No direct explosion hazard.

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

General measures : Absorb spillage to prevent material damage.

6.1.1. For non-emergency personnel

No additional information available

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

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

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. Do not breathe vapours. 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.

7.2. Conditions for safe storage, including any incompatibilities

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

Incompatible products : Oxidizing agent. amines.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

1-Piperazine ethanamine (140-31-8)

Not applicable

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

Not applicable

4-(2,4-dimethylheptan-3-yl)phenol (25154-52-3)

Not applicable

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

Not applicable

Phenol,4-nonyl-,branched (84852-15-3)

Not applicable

Benzenemethanol (100-51-6)

Not applicable

silicon dioxide, amorphous (7631-86-9)

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 to light yellow
Odour	:	Ammonical
Odour threshold	:	No data available
pH	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	≈ 500 °F
Flash point	:	No data available
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 : • 1-Piperazine ethanamine: > 10 g/100ml (20 °C, soluble) • 4-tert-butylphenol: 0.06 g/100ml (25 °C, insoluble) • Phenol,4-nonyl-,branched: 5.7 mg/l (25 °C, insoluble) • Benzenemethanol: 4.4 g/100ml (50 °C) • silicon dioxide, amorphous: 0.15 g/100ml • Propane-1,2,3-triol: 100 g/100ml (25 °C, Complete) • 1-methoxy-2-hydroxypropane: > 10 g/100ml (20 °C, Complete)
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

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

---------- TO BE COMPLETED ----------

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. irritant gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

1000ST-B	
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

4-(2,4-dimethylheptan-3-yl)phenol (25154-52-3)	
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

Phenol,4-nonyl-,branched (84852-15-3)	
LD50 oral rat	1882 mg/kg (Rat; Other; Experimental value; 1412 mg/kg bodyweight; Rat; Experimental value)
ATE US (oral)	1882.000 mg/kg bodyweight
ATE US (dermal)	2040.000 mg/kg bodyweight

Benzenemethanol (100-51-6)	
LD50 oral rat	1620 mg/kg (Rat; Experimental value)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit; Inconclusive, insufficient data)
ATE US (oral)	1620.000 mg/kg bodyweight
ATE US (gases)	4500.000 ppmv/4h
ATE US (vapours)	11.000 mg/l/4h
ATE US (dust,mist)	1.500 mg/l/4h

silicon dioxide, amorphous (7631-86-9)	
LD50 oral rat	> 10000 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)

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

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

(Based on available data, the classification criteria are not met)

silicon dioxide, amorphous (7631-86-9)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified

(Based on available data, the classification criteria are not met)

Specific target organ toxicity (single exposure) : Not classified

(Based on available data, the classification criteria are not met)

Specific target organ toxicity (repeated exposure) : Causes damage to organs through prolonged or repeated exposure (oral).

Aspiration hazard : Not classified
(Based on available data, the classification criteria are not met)

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

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

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

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)

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)

Phenol,4-nonyl-,branched (84852-15-3)	
EC50 Daphnia 2	0.085 mg/l (EC50; ASTM E729-88; 48 h; Daphnia magna; Semi-static system; Fresh water; Experimental value)
Threshold limit algae 2	0.027 mg/l (EC50; EPA OTS 797.1050; 96 h; Skeletonema costatum; Static system; Salt water; Experimental value)

Benzenemethanol (100-51-6)	
LC50 fish 1	460 mg/l (LC50; EPA OPP 72-1; 96 h; Pimephales promelas; Static system; Fresh water; Experimental value)

silicon dioxide, amorphous (7631-86-9)	
LC50 fish 1	> 10000 mg/l (LC50; 96 h)
EC50 Daphnia 1	> 10000 mg/l (EC50; 24 h)

12.2. Persistence and degradability

1000ST-B	
Persistence and degradability	Not established.

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

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

Phenol,4-nonyl-,branched (84852-15-3)	
Persistence and degradability	Inherently biodegradable. Biodegradability in soil: no data available. Adsorbs into the soil. Photodegradation in the air.

Benzenemethanol (100-51-6)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	1.6 g O_2/g substance
Chemical oxygen demand (COD)	2.4 g O_2/g substance
ThOD	2.5 g O_2/g substance

silicon dioxide, amorphous (7631-86-9)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable

silicon dioxide, amorphous (7631-86-9)	
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

12.3. Bioaccumulative potential

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).

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).

Phenol,4-nonyl-,branched (84852-15-3)	
BCF fish 1	271 (BCF; 480 h; Pimephales promelas)
BCF fish 2	1200/1300,BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 32 days; Gasterosteus aculeatus; Flow-through system; Salt water; Experimental value; Fresh weight
Log Pow	3.28 (OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 5.4; Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 23 °C)
Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).

Benzenemethanol (100-51-6)	
Log Pow	1-1.1,Experimental value; Other; 20 °C
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

silicon dioxide, amorphous (7631-86-9)	
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

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

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

Phenol,4-nonyl-,branched (84852-15-3)	
Log Koc	log Koc,Other; >= 4.35 - <= 5.69; Experimental value; GLP

Benzenemethanol (100-51-6)	
Surface tension	0.04 N/m (20 °C)

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 : Contain and dispose of waste according to local regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1760 Corrosive liquids, n.o.s., 8, III

UN-No.(DOT)	:	UN1760
Proper Shipping Name (DOT)	:	Corrosive liquids, n.o.s.
Class (DOT)	:	8 - Class 8 - Corrosive material 49 CFR 173.136
Hazard labels (DOT)	:	8 - Corrosive

Packing group (DOT)	:	III - Minor Danger
DOT Packaging Non Bulk (49 CFR 173.xxx)	:	203
DOT Packaging Bulk (49 CFR 173.xxx)	:	241
DOT Symbols	:	G - Identifies PSN requiring a technical name
DOT Special Provisions (49 CFR 172.102)	:	IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672) T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / (1 + a (tr - tf)) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP
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’’
Other information	:	No supplementary information available.

TDG

No additional information available

Transport by sea

UN-No. (IMDG) : ---------- TO BE COMPLETED/CALCULATED ----------

Air transport

UN-No. (IATA) : ---------- TO BE COMPLETED/CALCULATED ----------

SECTION 15: Regulatory information

15.1. US Federal regulations

1000ST-B
Listed on the United States TSCA (Toxic Substances Control Act) inventory

1-Piperazine ethanamine (140-31-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

O,O'-Bis(2-aminopropyl)polypropyleneglycol (9046-10-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

4-(2,4-dimethylheptan-3-yl)phenol (25154-52-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

4-tert-butylphenol (98-54-4)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Phenol,4-nonyl-,branched (84852-15-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Benzenemethanol (100-51-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

silicon dioxide, amorphous (7631-86-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA
No additional information available

EU-Regulations
No additional information available

National regulations
No additional information available

15.3. US State regulations

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
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

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