ESD-100-A

Safety Data Sheet

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

Date of issue: 12/09/2015

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : ESD-100-A

Product code : ESD-100-A

Other means of identification : ESD-100-A/1, ESD-100-A/2, ESD-100-A/5SF

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

Skin corrosion/irritation, Category 2 H315

Sensitisation — Skin, Category 1 H317

Full text of H statements : see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :

GHS07

Signal word (GHS-US) : Warning

Contains : Solvent naphtha (petroleum), light aromatic; (Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane); 1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane; Alkyl (C12-C14) Glycidyl Ether

Hazard statements (GHS-US) : H315 - Causes skin irritation
H317 - May cause an allergic skin reaction

Precautionary statements (GHS-US) : P261 - Avoid breathing vapours
P264 - Wash hands thoroughly after handling
P272 - Contaminated work clothing must not be allowed out of the workplace
P280 - Wear protective clothing
P302+P352 - If on skin: Wash with plenty of soap
P321 - Specific treatment (see a doctor if symptoms do not go away. on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it before reuse
P363 - Wash contaminated clothing before reuse
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
(Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane)	(CAS No) 25068-38-6	35 - 45	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Silicon Dioxide	(CAS No) 14808-60-7	5 - 10	Carc. 1A, H350
1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane	(CAS No) 17557-23-2	5 - 10	Skin Irrit. 2, H315 Skin Sens. 1, H317
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
Alkyl (C12-C14) Glycidyl Ether	(CAS No) 68609-97-2	0 - 5	Skin Irrit. 2, H315 Skin Sens. 1, H317
Stoddard solvent	(CAS No) 8052-41-3	0 - 1	Muta. 1B, H340 Carc. 1B, H350 STOT RE 1, H372 Asp. Tox. 1, H304

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Get medical advice/attention if you feel unwell.

First-aid measures after inhalation : When symptoms occur: go into open air and ventilate suspected area. Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after skin contact : When symptoms occur: rinse immediately with plenty of water. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Irritation of the eye tissue. Skin rash/inflammation.

Symptoms/injuries after inhalation : May cause irritation or asthma-like symptoms. May cause respiratory irritation.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes eye irritation.

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.

Reactivity : Polymerizes on exposure to some compounds e.g. amines, sulphurized compounds and (some) acids: release of heat.

5.3. Advice for firefighters

Firefighting instructions : Fight fire with normal precautions from a reasonable distance.

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

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage. Contain leaking substance. Dam up the liquid spill.

Methods for cleaning up : Absorb spillage to prevent material damage. Cover the solid spill with dry sand/earth/vermiculite soda ash or powdered limestone.

Other information : Dispose in a safe manner in accordance with local/national regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Keep only in original container. Store in a dry place. Store in a closed container.

Storage area : Keep container in a well-ventilated place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

(Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane) (25068-38-6)

Not applicable

1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane (17557-23-2)

Not applicable

Benzenemethanol (100-51-6)

Not applicable

Alkyl (C12-C14) Glycidyl Ether (68609-97-2)

Not applicable

Stoddard solvent (8052-41-3)

ACGIH	ACGIH TWA (ppm)	100 ppm (Stoddard solvent; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	Remark (ACGIH)	Eye, skin, & kidney dam;
OSHA	OSHA PEL (TWA) (mg/m³)	2900 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	500 ppm

Silicon Dioxide (14808-60-7)

ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³ (Silica-Crystalline Quartz; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Respirable fraction)
OSHA	Remark (OSHA)	(3) See Table Z-3.

8.2. Exposure controls

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

Personal protective equipment : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Hand protection : Gloves.

Eye protection : Chemical goggles or safety glasses.

Skin and body protection	:	Wear suitable protective clothing.
Respiratory protection	:	In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Translucent cloudy liquid
Odour	:	Mild Epoxy Odor
Odour threshold	:	No data available
pH	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	≈ 428 °F
Flash point	:	≈ 375 °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
Density	:	9.5
Solubility	:	Water: Solubility in water of component(s) of the mixture : • Muscuovite mica: insoluble • Silicon Dioxide: insoluble • 1-methoxy-2-hydroxypropane: > 10 g/100ml (20 °C, Complete) • Solvent naphtha (petroleum), light aromatic: < 0.01 g/100ml • (Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane): mg/l (insoluble) 5.4-8.4 • Benzenemethanol: 4.4 g/100ml (50 °C) • Xylenes: < 0.02 g/100ml • 2-Phenoxyethanol: 2.7 g/100ml • 1-methoxy-2-propyl acetate: 19.8 g/100ml (20 °C, soluble) • Stoddard solvent: insoluble
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

Polymerizes on exposure to some compounds e.g. amines, sulphurized compounds and (some) acids: release of heat.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Refer to Section 10 on Incompatible Materials.

10.5. Incompatible materials

Oxidizing agent.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. fume.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure : Dermal; Ingestion; Inhalation; Skin and eye contact

Acute toxicity : Not classified

(Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane) (25068-38-6)	
LD50 oral rat	> 2000 mg/kg (Rat; OECD 420: Acute Oral toxicity – Acute Toxic Class Method; Experimental value)
LD50 dermal rat	> 2000 mg/kg (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)

1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane (17557-23-2)	
LD50 oral rat	4500 mg/kg (Rat)
ATE US (oral)	4500.000 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

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Not classified

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

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Silicon Dioxide (14808-60-7)	
IARC group	1 - Carcinogenic to humans

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 : May cause irritation or asthma-like symptoms. May cause respiratory irritation.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Not classified due to lack of data.

ESD-100-A	
LC50 fish 1	3 mg/kg

(Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane) (25068-38-6)	
LC50 fish 2	2.3 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Oncorhynchus mykiss; Semi-static system; Fresh water; Experimental value)
EC50 Daphnia 2	1.1 - 2.8 mg/l (EC50; Equivalent or similar to OECD 202; 48 h; Daphnia magna; Static system; Fresh 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)

12.2. Persistence and degradability

(Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane) (25068-38-6)	
Persistence and degradability	Not readily biodegradable in water. Hydrolysis in water. Low potential for adsorption in soil.

1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane (17557-23-2)	
Persistence and degradability	Biodegradability in water: no data available.

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 (14808-60-7)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

12.3. Bioaccumulative potential

(Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane) (25068-38-6)	
BCF other aquatic organisms 1	3 - 31 (BCF)
Log Pow	>= 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane (17557-23-2)	
Bioaccumulative potential	No bioaccumulation data available.

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

Stoddard solvent (8052-41-3)	
Log Pow	3.16-7.06

12.4. Mobility in soil

(Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane) (25068-38-6)	
Surface tension	0.0 587-0.0589,20 °C
Log Koc	log Koc,SRC PCKOCWIN v2.0; 2.65; QSAR

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

Stoddard solvent (8052-41-3)	
Log Koc	log Koc,2.85-6.74

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

Not regulated for transport

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

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.

(Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane) **(25068-38-6)**
Listed on the United States TSCA (Toxic Substances Control Act) inventory

1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane (17557-23-2)
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

Alkyl (C12-C14) Glycidyl Ether (68609-97-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Stoddard solvent (8052-41-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Silicon Dioxide (14808-60-7)
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

Silicon Dioxide (14808-60-7)
Listed on IARC (International Agency for Research on Cancer)

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

Stoddard solvent (8052-41-3)
U.S. - New Jersey - Right to Know Hazardous Substance List

Silicon Dioxide (14808-60-7)
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.

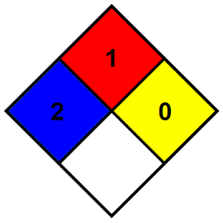
Full text of H-statements:

H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H340	May cause genetic defects
H350	May cause cancer
H372	Causes damage to organs through prolonged or repeated exposure
H401	Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects

NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is 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 : 2 Moderate Hazard - Temporary or minor injury may occur

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