AM-ESD-200-A

Safety Data Sheet

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

Date of issue: 12/02/2016

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : AM-ESD-200-A

Product code : AM-ESD-200-A

Other means of identification : AM-ESD-200-A/2SF

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: 800-427-9300 (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
Serious eye damage/eye irritation Category 2A	H319
Specific target organ toxicity (repeated exposure) Category 2	H373

Full text of H statements : see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :

GHS07 GHS08

Signal word (GHS-US) : Warning

Contains : dibutyltin dilaurate

Hazard statements (GHS-US) : H315 - Causes skin irritation
H319 - Causes serious eye irritation
H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS-US) : P260 - Do not breathe vapors
P264 - Wash hands, forearms and face thoroughly after handling
P280 - Wear protective clothing
P302+P352 - If on skin: Wash with plenty of soap
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P314 - Get medical advice/attention if you feel unwell
P321 - Specific treatment (see Call a doctor if symptoms persist. on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it 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
dipropylene1-(2-methyoxy-1-propoxy)-1-propan-2-ol	(CAS No) 88917-22-0	> 30	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319
Silicon Dioxide	(CAS No) 14808-60-7	10 - 15	Carc. 1A, H350
2-Ethylhexan-1-ol	(CAS No) 104-76-7	0 - 5	Flam. Liq. 4, H227
1-methoxy-2-propyl acetate	(CAS No) 108-65-6	0.149205 - 0.5	Flam. Liq. 3, H226
n-butyl ester of acetic acid	(CAS No) 123-86-4	0.049735 - 0.1	Flam. Liq. 3, H226
dibutyltin dilaurate	(CAS No) 77-58-7	< 0.05	Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
1-methyl-2-pyrrolidone	(CAS No) 872-50-4	0.0716184 - 0.01	Flam. Liq. 4, H227

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water. Take off 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. If eye irritation persists: Get medical advice/attention.

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

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

Symptoms/injuries after skin contact : Irritation.

Symptoms/injuries after eye contact : Eye irritation. Mild 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 : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

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. Avoid contact with skin and eyes.

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. Avoid contact with skin and eyes. Wear personal protective equipment.

Hygiene measures : 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

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2-Ethylhexan-1-ol (104-76-7)

Not applicable

dipropylene1-(2-methyoxy-1-propoxy)-1-propan-2-ol (88917-22-0)

Not applicable

1-methoxy-2-propyl acetate (108-65-6)

Not applicable

n-butyl ester of acetic acid (123-86-4)

ACGIH	ACGIH TWA (ppm)	150 ppm (n-Butyl acetate; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	ACGIH STEL (ppm)	200 ppm (n-Butyl acetate; USA; Short time value; TLV - Adopted Value)
ACGIH	Remark (ACGIH)	Eye & URT irr
OSHA	OSHA PEL (TWA) (mg/m³)	710 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	150 ppm

dibutyltin dilaurate (77-58-7)

ACGIH	ACGIH TWA (mg/m³)	0.1 mg/m³ (Tin organic compounds, as Sn; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	ACGIH STEL (mg/m³)	0.2 mg/m³ (Tin organic compounds, as Sn; USA; Short time value; TLV - Adopted Value)

1-methyl-2-pyrrolidone (872-50-4)

Not applicable

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.

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
Color	:	White opaque liquid
Odor	:	Slight solvent smell
Odor threshold	:	No data available
pH	:	No data available
Melting point	:	Not applicable
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	> 170 °F
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	No data available
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Vapor pressure	:	No data available
Relative density	:	No data available
Relative vapor density at 20 °C	:	No data available
Solubility	:	Water: Solubility in water of component(s) of the mixture : • : insoluble • : soluble • : < 0.1 mg/l • : 0.9 g/l (20 °C) • : 19 g/100ml • : < 0.02 g/100ml • : 2.7 g/100ml • : 19.8 g/100ml (20 °C, soluble) • : 0.53 g/100ml (20 °C) • : 40 g/100ml • lithium chloride: 45 g/100ml • 1-methyl-2-pyrrolidone: 100 g/100ml (20 °C, soluble) • dibutyltin dilaurate: g/100ml (20 °C) 1.43E-4 • : insoluble • : insoluble • : < 0.01 g/100ml • : < 0.1 g/100ml • : 0.15 g/100ml • : > 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

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

None under recommended storage and handling conditions (see section 7).

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	:	Not classified

2-Ethylhexan-1-ol (104-76-7)	
LD50 oral rat	3290 mg/kg body weight (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rat	> 3000 mg/kg body weight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
LD50 dermal rabbit	> 2600 mg/kg body weight (Rabbit; Experimental value; Equivalent or similar to OECD 402)
ATE US (oral)	3290.000 mg/kg body weight

dipropylene1-(2-methyoxy-1-propoxy)-1-propan-2-ol (88917-22-0)	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)

1-methoxy-2-propyl acetate (108-65-6)	
LD50 oral rat	6190 mg/kg body weight (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rat	> 2000 mg/kg (Rat; Experimental value; Equivalent or similar to OECD 402)
LD50 dermal rabbit	> 2000 mg/kg body weight (Rabbit; Experimental value; Equivalent or similar to OECD 402)
ATE US (oral)	6190.000 mg/kg body weight

n-butyl ester of acetic acid (123-86-4)	
LD50 oral rat	10760 - 12789 mg/kg body weight (Rat; Equivalent or similar to OECD 423; Experimental value)
LD50 dermal rabbit	14112 mg/kg body weight (Rabbit; Experimental value; Equivalent or similar to OECD 402)
ATE US (oral)	10760.000 mg/kg body weight
ATE US (dermal)	14112.000 mg/kg body weight

dibutyltin dilaurate (77-58-7)	
LD50 oral rat	2071 mg/kg body weight (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rat	> 2000 mg/kg body weight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
ATE US (oral)	2071.000 mg/kg body weight

1-methyl-2-pyrrolidone (872-50-4)	
LD50 oral rat	3914 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 4150 mg/kg bodyweight; Rat; Experimental value)
ATE US (oral)	3914.000 mg/kg body weight
ATE US (dermal)	7000.000 mg/kg body weight

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitization : Not classified

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) : May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

Symptoms/injuries after skin contact : Irritation.

Symptoms/injuries after eye contact : Eye irritation. Mild eye irritation.

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.

2-Ethylhexan-1-ol (104-76-7)	
EC50 Daphnia 1	39 mg/l (EC50; EU Method C.2; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
LC50 fish 2	17.1 mg/l (LC50; EU Method C.1; 96 h; Leuciscus idus; Flow-through system; Fresh water; Experimental value)

1-methoxy-2-propyl acetate (108-65-6)	
EC50 Daphnia 1	380 mg/l (EC50; Equivalent or similar to OECD 202; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
LC50 fish 2	100 - 180 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Oncorhynchus mykiss; Static system; Fresh water; Experimental value)
Threshold limit algae 1	>= 1000 mg/l (NOEC; OECD 201: Alga, Growth Inhibition Test; 96 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)
Threshold limit algae 2	> 1000 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 96 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)

n-butyl ester of acetic acid (123-86-4)	
LC50 fish 1	18 mg/l (LC50; Equivalent or similar to OECD 203; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 1	44 mg/l (EC50; Other; 48 h; Daphnia sp.; Static system; Fresh water; Experimental value)
Threshold limit algae 1	674.7 mg/l (EC50; Other; 72 h; Desmodesmus subspicatus; Static system; Fresh water; Experimental value)
Threshold limit algae 2	200 mg/l (NOEC; Other; 72 h; Desmodesmus subspicatus; Static system; Fresh water; Experimental value)

dibutyltin dilaurate (77-58-7)	
Threshold limit algae 1	> 1 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Scenedesmus subspicatus; Static system; Fresh water; Experimental value)

1-methyl-2-pyrrolidone (872-50-4)	
LC50 fish 1	3048 mg/l (LC50; 96 h; Salmo gairdneri)
EC50 Daphnia 1	4897 mg/l (EC50; 48 h; Daphnia magna)
Threshold limit algae 1	> 500 mg/l (EC50)
Threshold limit algae 2	600.5 mg/l (EC50; DIN 38412-9; 72 h; Desmodesmus subspicatus; Static system; Fresh water; Experimental value)

12.2. Persistence and degradability

2-Ethylhexan-1-ol (104-76-7)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.

dipropylene1-(2-methyoxy-1-propoxy)-1-propan-2-ol (88917-22-0)	
Persistence and degradability	Biodegradability in water: no data available.

1-methoxy-2-propyl acetate (108-65-6)	
Persistence and degradability	Readily biodegradable in water. Readily biodegradable in the soil. Low potential for adsorption in soil.

n-butyl ester of acetic acid (123-86-4)	
Persistence and degradability	Readily biodegradable in water. Low potential for adsorption in soil. Photolysis in the air.
ThOD	2.21 g O_2/g substance
BOD (% of ThOD)	0.46

dibutyltin dilaurate (77-58-7)	
Persistence and degradability	Not readily biodegradable in water. No (test)data on mobility of the substance available.

1-methyl-2-pyrrolidone (872-50-4)	
Persistence and degradability	Readily biodegradable in water. Inherently biodegradable. Biodegradable in the soil. Highly mobile in soil. Photodegradation in the air.
Biochemical oxygen demand (BOD)	1.07 g O_2/g substance
Chemical oxygen demand (COD)	1.56 g O_2/g substance
ThOD	1.9 g O_2/g substance
BOD (% of ThOD)	0.56

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

2-Ethylhexan-1-ol (104-76-7)	
BCF other aquatic organisms 1	25.33 (BCF; BCFWIN)
Log Pow	2.9 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

dipropylene1-(2-methyoxy-1-propoxy)-1-propan-2-ol (88917-22-0)	
Log Pow	0.66 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

1-methoxy-2-propyl acetate (108-65-6)	
Log Pow	1.2 (Experimental value; Equivalent or similar to OECD 117; 20 °C; 0.36; Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

n-butyl ester of acetic acid (123-86-4)	
BCF fish 1	15.3 (BCF)
Log Pow	2.3 (Test data; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

dibutyltin dilaurate (77-58-7)	
BCF fish 1	31 - 813 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 7 days; Carassius carassius; Flow-through system; Fresh water; Experimental value)
Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).

1-methyl-2-pyrrolidone (872-50-4)	
Log Pow	-0.73 - -0.46 (Experimental value; Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

2-Ethylhexan-1-ol (104-76-7)	
Surface tension	0.000047 N/m (20 °C; 0.81 g/l)
Log Koc	Koc,PCKOCWIN v1.66; 26.01; Calculated value

1-methoxy-2-propyl acetate (108-65-6)	
Surface tension	0.0294 N/m (20 °C; 100 vol %)
Log Koc	log Koc,0.264; QSAR

n-butyl ester of acetic acid (123-86-4)	
Surface tension	0.0163 N/m (20 °C)
Log Koc	log Koc,SRC PCKOCWIN v2.0; 1.268/1.844; QSAR

1-methyl-2-pyrrolidone (872-50-4)	
Surface tension	0.407 N/m
Log Koc	Koc,20.94; Calculated value; 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

Not regulated for transport

TDG

TDG Proper Shipping Name : Not Regulated

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

AM-ESD-200-A
Listed on the United States TSCA (Toxic Substances Control Act) inventory

2-Ethylhexan-1-ol (104-76-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

dipropylene1-(2-methyoxy-1-propoxy)-1-propan-2-ol (88917-22-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

1-methoxy-2-propyl acetate (108-65-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

n-butyl ester of acetic acid (123-86-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporing requirements of the United States SARA Section 313	
CERCLA RQ	5000 lb

dibutyltin dilaurate (77-58-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

1-methyl-2-pyrrolidone (872-50-4)
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313

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

1-methyl-2-pyrrolidone (872-50-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	Yes	No	No	3200

n-butyl ester of acetic acid (123-86-4)
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

1-methyl-2-pyrrolidone (872-50-4)
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.

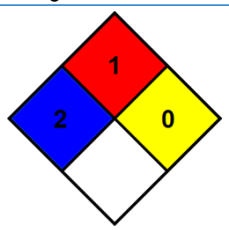
Full text of H-phrases:

H226	Flammable liquid and vapor
H227	Combustible liquid
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
H350	May cause cancer
H360	May damage fertility or the unborn child
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very 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