Reviewed on 01/26/2015



Safety Data Sheet acc. to OSHA HCS

Printing date 06/02/2015

1 Identification

- · Product identifier
- · Trade name: FoamsulateTM 220 Series Resin (Mid)
- · Details of the supplier of the safety data sheet
- Manufacturer/Supplier: Premium Spray Products Inc 1255 Kennestone Circle Suite 200 Marietta, GA 30066 USA sdsinfo@premiumspray.com
- · Information department: EH&S Department
- Emergency telephone number: During normal operating hours: (770) 528-9556 ChemTrec: (800) 424-9300

2 Hazard(s) identification

· Classification of the substance or mixture

Health hazard

STOT SE 2 H371 May cause damage to organs.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



Skin Irrit. 2 H315 Causes skin irritation.

· Label elements

- GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- Hazard pictograms



· Signal word Danger

• Hazard-determining components of labeling: Polyol(s) N,N-bis[3-(dimethylamino)propyl]-N',N'-dimethylpropane-1,3-diamine • Hazard statements Causes skin irritation. Causes serious eye damage. May cause damage to organs.

(Contd. on page 2)

⁻ US



Printing date 06/02/2015

Reviewed on 01/26/2015

Trade name: Foamsulate[™] 220 Series Resin (Mid)

(Contd. of page 1)
May cause damage to organs through prolonged or repeated exposure. • Precautionary statements
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Do not breathe dust/fume/gas/mist/vapors/spray.
In case of inadequate ventilation wear respiratory protection.
Wear protective gloves/protective clothing/eye protection/face protection.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Wash contaminated clothing before reuse.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Get medical advice/attention if you feel unwell. In case of fire: Use for extinction: CO2, powder or water spray.
If on skin: Wash with plenty of water.
IF exposed or concerned: Call a poison center/doctor.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/container in accordance with local/regional/national/international regulations.
· Classification system:
NFPA ratings (scale 0 - 4)
Health = 2
Fire = 1
2 0 Reactivity = 0
HMIS-ratings (scale 0 - 4)
HEALTH 2 $Health = 2$
FIRE 1 $Fire = l$
REACTIVITY Reactivity = 0
· Other hazards
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

• Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous co	Polyol(s)	30-60%
940912-28-7	Polyether Polyol	7-13%
	tris(2-chlorisopropyl)-phosphate	5-10%
406-58-6	1,1,1,3,3-pentafluorobutane	5-10%
33329-35-0	N,N-bis[3-(dimethylamino)propyl]-N',N'-dimethylpropane-1,3-diamine	1-5%
77098-07-8	Tetrabromophthalic Acid diester/diol	1-5%
		(Contd. on page 2

-US -



Printing date 06/02/2015

Reviewed on 01/26/2015

Trade name: Foamsulate[™] 220 Series Resin (Mid)

		ntd. of page 2)
	diethylene glycol	1-5%
56-81-5	glycerol	1-5%
78-40-0	triethyl phosphate	1-5%
460-73-1	1,1,1,3,3-Pentafluoropropane	1-5%
3033-62-3	N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)	<i>≤1.0%</i>

4 First-aid measures

· Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

First Aid responders should pay attention to self-protection and use the recommended protective clothing. If potential for exposure exists refer to Section 8 for specific personal protective quipment.

• After inhalation:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

• After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Suitable emergency safety shower should be immediately available.

• After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

• After swallowing:

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

· Information for doctor:

- Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray. Use fire fighting measures that suit the environment.

• For safety reasons unsuitable extinguishing agents: Do not use direct water stream. May spread fire.

· Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced. There are no known unusual fire or expolsion hazards.

- · Advice for firefighters
- Protective equipment:

Mouth respiratory protective device.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. PVC boots, gloves, safety helmet and protective clothing should be worn.

(Contd. on page 4)

US



Printing date 06/02/2015

Reviewed on 01/26/2015

Trade name: FoamsulateTM 220 Series Resin (Mid)

(Contd. of page 3)

· Additional information

Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers. Fight fire from protected location or safe distance. Move container(s) from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Contain fire water run-off if possible. Fire water run-off if not contained, may cause environmental damage.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures
 Wear protective equipment. Keep unprotected persons away.
 Isolate area. Keep unnecessary and unprotected personnel from entering the area. Spilled material may cause slipping hazard. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

· Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Prevent from entering into soil or ditches. Inform the relevant authorities if the product has caused environmental pollution.

Do not allow to enter sewers/ surface or ground water.

• *Methods and material for containment and cleaning up: Ensure adequate ventilation.*

Contain spilled material if possible. Absorb with materials such as: Dirt, Sand, Sawdust. Collect in suitable and properly labeled containers. Wash the spill site with water. See Section 13, Disposal Considerations, for

additional information. • **Reference to other sections** See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

7 Handling and storage

· Handling:

· Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Do not swallow. Wash thoroughly after handling. Keep container closed. See Section 8, Exposure Controls and Personal Protection.

• *Information about protection against explosions and fires: Keep ignition sources away - Do not smoke. Keep respiratory protective device available.*

• Conditions for safe storage, including any incompatibilities

· Storage:

• Requirements to be met by storerooms and receptacles: No special requirements.

- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Keep receptacle tightly sealed. Storage Period: 6 months Storage Temp: $15 - 35 \,^{\circ}C$

(Contd. on page 5)

US



Printing date 06/02/2015

Reviewed on 01/26/2015

Trade name: FoamsulateTM 220 Series Resin (Mid)

(Contd. of page 4)

• Specific end use(s) See the technical data sheet on this product for further information.

8 Exposure controls/personal protection

· Control parameters

· Components with limit values that require monitoring at the workplace:

940912-28-7 Polyether Polyol

PPM Ceiling limit value: .3 mg/m³

111-46-6 diethylene glycol

WEEL Long-term value: 10 mg/m³

56-81-5 glycerol

PEL Long-term value: 15* 5** mg/m³ mist; *total dust **respirable fraction

TLV Long-term value: 10 mg/m³ *TLV* withdrawn-insufficient data human occup. exp.

78-40-0 triethyl phosphate

WEEL Long-term value: 7.45 mg/m³

460-73-1 1,1,1,3,3-Pentafluoropropane

TWA Long-term value: 1644 mg/m³ 300 ppm

3033-62-3 N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)

REL Minimize exp.;NIAX Catalyst ESN;Pocket Guide App.C

TLV Short-term value: 0.98 mg/m³, 0.15 ppm Long-term value: 0.33 mg/m³, 0.05 ppm Skin

• Additional information: The lists that were valid during the creation were used as basis.

· Exposure controls

- · Personal protective equipment:
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

• Breathing equipment:

In case of brief exposure at low atmospheric levels use an approved air-purifying respiratory equiped with an organic vapor sorbent and a particle filter. In case of intensive or longer exposure use a positive pressure air-supplying respirator (air line or self-contained breathing apparatus).

• Protection of hands:



Protective gloves

The workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

(Contd. on page 6)

US



Printing date 06/02/2015

Reviewed on 01/26/2015

Trade name: FoamsulateTM 220 Series Resin (Mid)

(Contd. of page 5)

· Material of gloves

Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and microorganisms. Examples of preferred glove barrier materials include: Butyl rubber, Polyethylene, EVAL, Neoprene, Nitrile, Viton. When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher is recommended.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection:



Tightly sealed chemical goggles consistent with EN 166 or equivalent. Wear a face-shield which allows use of chemical goggles, or wear full-face respirator to protect face and eyes when there is any likelyhood of splashes.

· Body protection:

Personal protective clothing for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Information on basic physical and	chemical properties	
General Information		
Appearance: Form:	Liquid	
Form. Color:	Amber colored	
Odor:	Amine-like	
Odour threshold:	Not determined.	
pH-value:	Not determined.	
Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	Undetermined.	
Flash point:	> 100 °C (> 212 °F)	
Flammability (solid, gaseous):	Not applicable.	
Ignition temperature:		
Decomposition temperature:	Not determined.	
Auto igniting:	Product is not selfigniting.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapor pressure:	Not determined.	
Density:	Not determined.	
Relative density	Not determined.	
Vapour density	Not determined.	



Printing date 06/02/2015

Reviewed on 01/26/2015

Trade name: FoamsulateTM 220 Series Resin (Mid)

 Solubility in / Miscibility with Water: 	<i>t</i> Not miscible or difficult to mix.	
· Partition coefficient (n-octan	ol/water): Not determined.	
· Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
• Other information	No further relevant information available.	

- · Reactivity
- Chemical stability This product is stable at recommended storage conditions (See Section 7).
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- Conditions to avoid Avoid moisture to protect product quality.
- · Incompatible materials:

Avoid contact with oxidizing materials. Avoid contact with: Strong acids. Strong bases. Avoid unintended contact with isocyanates. The reaction of polyols and isocyanates generate heat.

· Hazardous decomposition products: CO and CO2

11 Toxicological information

· Information on toxicological effects

• Acute toxicity:

· LD/LC50 values that are relevant for classification:

940912-28-7 Polyether Polyol

Oral	LD50	1370 mg/kg (rat)
------	------	------------------

Dermal LD50	12800 mg/kg (rabbit)
-------------	----------------------

33329-35-0 N,N-bis[3-(dimethylamino)propyl]-N',N'-dimethylpropane-1,3-diamine

Oral	LD50	2445 mg/kg (rat)
Dermal	LD50	1150 mg/kg (rabbit)
Inhalative	LC50/4 h	1.9 mg/l (rat)

· Primary irritant effect:

• on the skin: Irritant to skin and mucous membranes.

• on the eye: Irritating effect.

• Sensitization: No sensitizing effects known.

• Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: Toxic

Irritant

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

940912-28-7 Polyether Polyol

(Contd. on page 8)

US ·

(Contd. of page 7)



Safety Data Sheet acc. to OSHA HCS

Printing date 06/02/2015

Reviewed on 01/26/2015

Trade name: FoamsulateTM 220 Series Resin (Mid)

· NTP (National Toxicology Program)

940912-28-7 Polyether Polyol

OSHA-Ca (Occupational Safety & Health Administration)

940912-28-7 Polyether Polyol

13674-84-5 tris(2-chlorisopropyl)-phosphate

12 Ecological information

· Toxicity

- Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- *Mobility in soil* No further relevant information available.
- Additional ecological information:

· General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. · Results of PBT and vPvB assessment

- · **PBT:** Not applicable.
- · **vPvB:** Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

· Waste treatment methods

· Recommendation:

Waste Disposal: Incinerate in a licensed facility. Do not discharge into waterways or sewer systems.

Container Disposal: Steel drums must be emptied (as defined by RCRA, Section 261.7 or state regulations that may be more stringent) and can be sent to a licensed drum reconditioner for reuse, a scrap metal dealer, or an approved landfill. Drums destined for a scrap dealer or landfill must be punctured or crushed to prevent reuse.

• *Recommendation:* Disposal must be made according to official regulations.

UN-Number DOT, ADN, IMDG, IATA	not regulated	
UN proper shipping name DOT, ADN, IMDG, IATA	not regulated	
Transport hazard class(es)		
DOT	DOT Non-Bulk: Not Regulated	
· Class	not regulated	

[·] Uncleaned packagings:



Printing date 06/02/2015

Reviewed on 01/26/2015

Trade name: FoamsulateTM 220 Series Resin (Mid)

	(Contd. of page 8)
· ADN/R Class:	not regulated
· Packing group · DOT, IMDG, IATA	not regulated
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user	Not applicable.
• Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	-

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture

· Clean Air Act			
None of the ingredients is listed.			
· Clean Water Act			
None of the ingredients is listed.			
· Sara			
· SARA 302/304 Extremely Hazardous Substance			
None of the ingredients is listed.			
Section 355 (extremely hazardous substances):			
None of the ingredients is listed.			
· Section 313 (Specific toxic chemical listings):			
940912-28-7 Polyether Polyol			
• TSCA (Toxic Substances Control Act):			
All ingredients are listed.			
· Massachusetts Right To Know			
460-73-1 1,1,1,3,3-Pentafluoropropane			
· New Jersey Right To Know			
112-60-7 Tetraethylene glycol			
· Pennsylvania Right To Know			
112-60-7 Tetraethylene glycol			
· Proposition 65			
· Chemicals known to cause cancer:			
940912-28-7 Polyether Polyol			
13674-84-5 tris(2-chlorisopropyl)-phosphate			
77098-07-8 Tetrabromophthalic Acid diester/diol			
460-73-1 1,1,1,3,3-Pentafluoropropane			
· Chemicals known to cause reproductive toxicity for females:			
940912-28-7 Polyether Polyol			
(Contd. on page 10)			

(Contd. of page 9)



Safety Data Sheet acc. to OSHA HCS

Printing date 06/02/2015

Reviewed on 01/26/2015

Trade name: FoamsulateTM 220 Series Resin (Mid)

13674-84-5 tris(2-chlorisopropyl)-phosphate

· Chemicals known to cause reproductive toxicity for males:

940912-28-7 Polyether Polyol

13674-84-5 tris(2-chlorisopropyl)-phosphate

· Chemicals known to cause developmental toxicity:

940912-28-7 Polyether Polyol

13674-84-5 tris(2-chlorisopropyl)-phosphate

· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

• TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

·NIOSH-Ca (National Institute for Occupational Safety and Health)

• *GHS label elements* The product is classified and labeled according to the Globally Harmonized System (GHS). • *Hazard pictograms*



· Signal word Danger

· Hazard-determining components of labeling: *Polvol(s) N*,*N*-bis[3-(dimethylamino)propyl]-N',*N*'-dimethylpropane-1,3-diamine · Hazard statements Causes skin irritation. Causes serious eye damage. May cause damage to organs. May cause damage to organs through prolonged or repeated exposure. · Precautionary statements If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Do not breathe dust/fume/gas/mist/vapors/spray. In case of inadequate ventilation wear respiratory protection. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. If eve irritation persists: Get medical advice/attention. Get medical advice/attention if you feel unwell. *In case of fire: Use for extinction: CO2, powder or water spray.*

(Contd. on page 11)

US



Printing date 06/02/2015

Reviewed on 01/26/2015

Trade name: FoamsulateTM 220 Series Resin (Mid)

(Contd. of page 10)

If on skin: Wash with plenty of water. IF exposed or concerned: Call a poison center/doctor. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/container in accordance with local/regional/national/international regulations. **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

Premium Spray Products urges each customer of recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effectivie date shown on this (M)SDS. However, no warranty, express or implied is given. Regulatory reuirements are subject to change and may differ between various locations. It is the buyer's/ user's responsibility to ensure that his/her activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the produt are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M) SDS, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

· Department issuing SDS: Environmental Health & Safety Department.

· Contact: M. Phillips

· Date of preparation / last revision 06/02/2015 / -

· Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2 Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1 STOT SE 2: Specific target organ toxicity - Single exposure, Hazard Category 2 STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2