

SAFETY DATA SHEET

GHS
United States

Section 1. Product and company identification

Product name	VANLUBE® 7723	<u>In case of emergency</u>
Code	53168	1-203-853-1400
Supplier/Manufacturer	Vanderbilt Chemicals, LLC 30 Winfield Street Norwalk, CT 06855	Chemtrec: 1-800-424-9300 Outside US: +1-703-527-3887
Chemical name	Carbamodithioic acid, dibutyl-methylene ester.	
Synonym	Methylenebis (dibutyldithiocarbamate)	
Material uses	Lubricant additives	
Product type	Liquid.	

Section 2. Hazards identification

OSHA/HCS status	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Classification of the substance or mixture	Not classified.
<u>GHS label elements</u>	
Signal word	No signal word.
Hazard statements	No known significant effects or critical hazards.
<u>Precautionary statements</u>	
Prevention	Not applicable.
Response	Not applicable.
Storage	Not applicable.
Disposal	Not applicable.
Hazards not otherwise classified	None known.

Section 3. Composition/information on ingredients

Substance/mixture Substance

Ingredient name	CAS number	% by weight
methylenebis(dibutyldithiocarbamate)	10254-57-6	100

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	No known significant effects or critical hazards.
Inhalation	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	No specific data.
Inhalation	No specific data.
Skin contact	No specific data.
Ingestion	No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	No specific treatment.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	None known.

Specific hazards arising from the chemical In a fire or if heated, a pressure increase will occur and the container may burst.

Section 5. Fire-fighting measures

Hazardous thermal decomposition products

Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides

Special protective actions for fire-fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

When stored at low temperatures, some crystallization or gelling may occur. The product may be reliquified by agitation and heating at 40 to 50°C.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Appropriate engineering controls

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Recommended: splash goggles

Skin protection

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection

Personal protective equipment 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. Recommended: lab coat

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Personal protective equipment (Pictograms)



Section 8. Exposure controls/personal protection

Recommended Personal Protective Equipment (when used in metal working fluid formulations)

Respiratory Protection Statement:

When used in metal working fluid (MWF) formulations where liquid aerosol concentrations ("oil mist") may be generated and detected in accordance with NIOSH analytical method 5524, or any other application where liquid aerosol concentrations may be generated and detected in accordance with NIOSH Method 5026, one of the following types of respirators may be necessary:

- An oil proof (class P) air-purifying, half mask respirator capable to filtering 99.97% of particles 0.3 microns or larger when aerosol ("oil mist") concentrations are 5.0 mg/m³ (total particulate mass) or less;
- a supplied-air respirator operated in a continuous-flow mode when aerosol ("oil mist") concentrations are 12.5 mg/m³ (total particulate mass) or less; - a powered, air-purifying respirator with an oil proof (class P) high-efficiency particulate filter when aerosol ("oil mist") concentrations are 12.5 mg/m³ (total particulate mass) or less;
- an air-purifying, full-facepiece respirator with an oil proof (class P) filter capable to filtering 99.97% of particles 0.3 microns or larger when aerosol ("oil mist") concentrations are 25.0 mg/m³ (total particulate mass) or less; or
- a supplied-air respirator operated in a pressure-demand or other positive-pressure mode.

Appropriate respiratory equipment depends on conditions of work and use. Consult a safety professional for process-specific guidance. Safety procedures should be developed for each intended application.

Dermal Protection Statement:

Hand Protection

When used in metal working fluids, and / or when cleaning up spills, or if there is a risk of splashing, use nitrile rubber gloves to avoid direct skin contact.

Breakthrough time:

Breakthrough time data are generated by glove manufacturers under laboratory test conditions and represent how long a glove can be expected to provide effective permeation resistance. It is important when following breakthrough time recommendations that actual workplace conditions are considered. Most gloves provide protection for only a limited time before they must be discarded and replaced because they will break through after repeated use. Always consult with your glove supplier for up-to-date technical information on breakthrough times for the recommended glove type.

Recommendations on the selection of gloves are as follows:

Continuous contact:

Gloves with a minimum breakthrough time of 240 minutes, or >480 minutes if suitable gloves can be obtained. If suitable gloves are not available to offer that level of protection, gloves with shorter breakthrough times may be acceptable as long as appropriate glove maintenance and replacement regimes are determined and adhered to.

Short-term / splash protection:

Recommended breakthrough times as above.

It is recognized that for short-term, transient exposures, gloves with shorter breakthrough times may commonly be used. Therefore, appropriate maintenance and replacement regimes must be determined and rigorously followed.

Glove Thickness:

For general applications, gloves with a thickness typically greater than 0.35 mm are recommended.

It should be emphasized that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times. Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be considered to ensure selection of the most appropriate glove for the task.

Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:

- Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However,

Section 8. Exposure controls/personal protection

these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.

- Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential.

Skin and Body

When used in metal working fluids, nitrile rubber coated aprons and/or impervious nitrile rubber coated suits and boots should be used.

Breakthrough time:

Breakthrough time data are generated by protective clothing manufacturers under laboratory test conditions and represent how long a garment can be expected to provide effective permeation resistance. It is important when following breakthrough time recommendations that actual workplace conditions are considered. Most protective clothing provides protection for only a limited time before it must be discarded and replaced because it will break down after repeated chemical exposures. Always consult with your protective clothing supplier for up-to-date technical information on breakthrough times for the recommended protective clothing type.

Recommendations on the selection of protective clothing are as follows:

Continuous contact:

Protective clothing with a minimum breakthrough time of 240 minutes, or >480 minutes if suitable clothing can be obtained. If suitable clothing is not available to offer that level of protection, clothing with shorter breakthrough times may be acceptable as long as appropriate clothing maintenance and replacement regimes are determined and adhered to.

Short-term / splash protection:

Recommended breakthrough times as above.

It is recognized that for short-term, transient exposures, clothing with shorter breakthrough times may commonly be used. Therefore, appropriate maintenance and replacement regimes must be determined and rigorously followed.

Clothing Thickness:

For general applications, clothing with a thickness typically greater than 0.35 mm is recommended.

Clothing thickness is not necessarily a good predictor of clothing resistance to a specific chemical, as the permeation efficiency of the clothing will be dependent on the composition of the material. Selection should also be based on consideration of the task and knowledge of breakthrough times. Thickness may also vary depending on the manufacturer, type and model. The manufacturers' technical data should always be considered to ensure selection of the most appropriate clothing for the task.

Note: Depending on the activity being conducted, clothing of varying thickness may be required for specific tasks. For example:

- Thinner clothing (down to 0.1 mm or less) may be required where a high degree of mobility is needed. However, these types of clothing are only likely to give short duration protection and would normally be just for single use applications, then disposed of.

- Thicker clothing (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential.

Refer to the follow standards for further information:

- Respiratory protection: EN 529
- Gloves: EN 420, EN 374
- Eye protection: EN 166
- Filtering half-mask: EN 149
- Filtering half-mask with valve: EN 405
- Half-mask: EN 140 plus filter
- Full-face mask: EN 136 plus filter
- Particulate filters: EN 143
- Gas/combined filters: EN 14387

Eye / Face Protection Statement:

Section 8. Exposure controls/personal protection

When used in metal working fluids, and / or when cleaning up spills, or if there is a risk of splashing, use safety glasses with side shields or splash resistant goggles.

General Information:

Specific work environments and material handling practices may vary. Safety procedures should be developed for each application. The correct choice of personal protective equipment (PPE) depends upon the chemicals being handled, and the conditions of work and use.

Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organization for standards.

The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

Engineering Controls:

When used in metal working fluids, or any other application where liquid aerosol concentrations ("oil mist") may be generated, provide local exhaust ventilation or other engineering controls to keep the liquid aerosol concentrations ("oil mist") below applicable occupational exposure limits.

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated.

Section 9. Physical and chemical properties

Appearance

Physical state	Liquid.
Color	Amber to amber green.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point	-40°C (-40°F)
Boiling point	Not available.
Flash point	Closed cup: 192°C (377.6°F) [Pensky-Martens]
Burning time	Not applicable.
Burning rate	Not applicable.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower and upper explosive (flammable) limits	Not available.
Vapor pressure	<1.0x10 ⁻¹⁰ mm Hg [room temperature]

Section 9. Physical and chemical properties

Vapor density	Not available.
Density	1.06 g/cm ³ [15.6°C (60.1°F)]
Relative density	1.06
Solubility	Insoluble in the following materials: cold water.
Solubility in water	0.000243 g/l
Partition coefficient: n-octanol/water	8.42
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
SADT	Not available.
Viscosity	Kinematic: 0.15 cm ² /s (15 cSt) [at 100°C]
Aerosol product	

Section 10. Stability and reactivity

Reactivity	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	No specific data.
Incompatible materials	No specific data.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
methylenebis (dibutyldithiocarbamate)	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	16000 mg/kg	-

Irritation/Corrosion

Not available.

Conclusion/Summary

Skin	Non-irritating to the skin. (Rabbit)
Eyes	Non-irritating to the eyes. (Rabbit)

Sensitization

Section 11. Toxicological information

Product/ingredient name	Route of exposure	Species	Result
methylenebis (dibutyldithiocarbamate)	skin	Mouse	Not sensitizing

Mutagenicity

Product/ingredient name	Test	Experiment	Result
methylenebis (dibutyldithiocarbamate)	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
	OECD 476	Experiment: In vitro Subject: Mammalian-Animal	Negative
	OECD 473	Experiment: In vitro Subject: Mammalian-Human	Negative

Carcinogenicity

Not available.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
methylenebis (dibutyldithiocarbamate)	-	-	-	Rat	Oral: 1000 ppm NOAEL, Adult	-
	-	-	-	Rat	Oral: >20000 ppm NOAEL, Offspring	-

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Routes of entry anticipated: Dermal, Inhalation.

Potential acute health effects

Eye contact

No known significant effects or critical hazards.

Section 11. Toxicological information

Inhalation	No known significant effects or critical hazards.
Skin contact	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	No specific data.
Inhalation	No specific data.
Skin contact	No specific data.
Ingestion	No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects	Not available.
Potential delayed effects	Not available.

Long term exposure

Potential immediate effects	Not available.
Potential delayed effects	Not available.

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
methylenebis (dibutylidithiocarbamate)	Sub-acute NOAEL Oral	Rat	1000 ppm	-

General	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Other information Not available.

Section 12. Ecological information

Toxicity

Section 12. Ecological information

Product/ingredient name	Result	Species	Exposure
methylenebis (dibutyldithiocarbamate)	Acute EC50 >0.0325 mg/l	Algae	72 hours
	Acute EC50 >0.052 mg/l	Daphnia	48 hours
	Acute EC50 >1000 mg/l	Micro-organism	3 hours
	Acute LC50 >0.06 mg/l	Fish	96 hours
	Acute NOEC 0.0325 mg/l	Algae	72 hours
	Acute NOEC 0.052 mg/l	Daphnia	48 hours
	Acute NOEC 0.06 mg/l	Fish	96 hours
	Acute NOEC 1000 mg/l	Micro-organism	3 hours
	Chronic NOEC 0.247 mg/l	Daphnia	21 days

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
methylenebis (dibutyldithiocarbamate)	OECD 301B	21 % - Not readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
methylenebis (dibutyldithiocarbamate)	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
methylenebis (dibutyldithiocarbamate)	8.42	10.86	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) Not available.

Other adverse effects No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	Not regulated.	-	-	-		-
TDG Classification	Not regulated.	-	-	-		-
ADR/RID Class	Not regulated.	-	-	-		-
IMDG Class	Not regulated.	-	-	-		-
IATA-DGR Class	Not regulated.	-	-	-		-

PG* : Packing group

Section 15. Regulatory information

[United States inventory \(TSCA 8b\)](#) All components are active or exempted.

[U.S. Federal regulations](#)

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

[SARA 302/304](#)

[Composition/information on ingredients](#)

No products were found.

[SARA 304 RQ](#)

Not applicable.

[SARA 311/312](#)

[Classification](#)

Not applicable.

[Composition/information on ingredients](#)

No products were found.

[State regulations](#)

[Massachusetts](#)

None of the components are listed.

[New York](#)

None of the components are listed.

[New Jersey](#)

None of the components are listed.

[Pennsylvania](#)

None of the components are listed.

[California Prop. 65](#)

None of the components are listed.

[International regulations](#)

[Australia inventory \(AIIIC\)](#)

All components are listed or exempted.

[Canada inventory](#)

All components are listed or exempted.

[China inventory \(IECSC\)](#)

All components are listed or exempted.

[Europe inventory](#)

All components are listed or exempted.

[Japan inventory \(CSCL\)](#)

All components are listed or exempted.

[Korea inventory \(KECI\)](#)

All components are listed or exempted.

Section 15. Regulatory information

New Zealand Inventory of Chemicals (NZIoC)	All components are listed or exempted.
Philippines inventory (PICCS)	All components are listed or exempted.
Taiwan Chemical Substances Inventory (TCSI)	All components are listed or exempted.

Section 16. Other information

[Hazardous Material Identification System \(U.S.A.\)](#)

Health	0
Flammability	1
Physical hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

[National Fire Protection Association \(U.S.A.\)](#)



Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

[History](#)

Date of printing	7/14/2022
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Date of previous issue	6/10/2020
Version	5
Key to abbreviations	<p>ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations</p>

Section 16. Other information

References	Not available.
Information contact	Vanderbilt Global Services, LLC Corporate Risk Management 1-203-295-2143

Visit www.vanderbiltchemicals.com for more information.

Notice to reader

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