

# SAFETY DATA SHEET

GHS  
United States

## Section 1. Product and company identification

<b>Product name</b>	<b>VANSORB™ 1022</b>	<u>In case of emergency</u>
<b>Code</b>	54348	1-203-853-1400
<b>Supplier/Manufacturer</b>	Vanderbilt Chemicals, LLC 30 Winfield Street Norwalk, CT 06855	Chemtrec: 1-800-424-9300 Outside US: +1-703-527-3887
<b>Synonym</b>	Not available.	
<b>Material uses</b>	Rubber and plastics additive	
<b>Product type</b>	Solid.	

## Section 2. Hazards identification

<b>OSHA/HCS status</b>	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
<b>Classification of the substance or mixture</b>	COMBUSTIBLE DUSTS SKIN SENSITIZATION - Category 1  Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 25 - 45% Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 55 - 100%

### GHS label elements

#### Hazard pictograms



<b>Signal word</b>	Warning
<b>Hazard statements</b>	May form combustible dust concentrations in air. May cause an allergic skin reaction.

### Precautionary statements

<b>General</b>	Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
<b>Prevention</b>	Wear protective gloves. Avoid breathing dust. Contaminated work clothing must not be allowed out of the workplace.
<b>Response</b>	IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.
<b>Storage</b>	Not applicable.
<b>Disposal</b>	Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Supplemental label elements</b>	Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.

## Section 2. Hazards identification

**Hazards not otherwise classified** None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** Mixture

Ingredient name	CAS number	% by weight
hindered phenolic compound	-	30 - 55
hydroxybenzophenone compound	-	25 - 45
triazole compound	-	25 - 45

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

## Section 4. First aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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.
<b>Skin contact</b>	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
<b>Ingestion</b>	Wash out mouth with water. Remove dentures if any. 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. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<b>Eye contact</b>	No known significant effects or critical hazards.
<b>Inhalation</b>	No known significant effects or critical hazards.
<b>Skin contact</b>	May cause an allergic skin reaction.
<b>Ingestion</b>	No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

<b>Eye contact</b>	No specific data.
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## Section 4. First aid measures

<b>Inhalation</b>	No specific data.
<b>Skin contact</b>	Adverse symptoms may include the following: irritation redness
<b>Ingestion</b>	No specific data.

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

<b>Notes to physician</b>	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.
<b>Specific treatments</b>	No specific treatment.
<b>Protection of first-aiders</b>	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

<b>Suitable extinguishing media</b>	In case of fire, use water spray (fog), foam, dry chemical or CO <sub>2</sub> .
<b>Unsuitable extinguishing media</b>	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.

### Specific hazards arising from the chemical

<b>Hazardous thermal decomposition products</b>	May form explosible dust-air mixture if dispersed.  Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
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### 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

### 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

<b>For non-emergency personnel</b>	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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	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".

## Section 6. Accidental release measures

**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** Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

**Large spill** Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. 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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

**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.

**Conditions for safe storage, including any incompatibilities** Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

### Occupational exposure limits

## Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Additional Occupational Exposure Limit Values for possible hazards during processing	PEL: 15 mg/m <sup>3</sup> (Total Dust), 5 mg/m <sup>3</sup> (Respirable Fraction) REL: 10 mg/m <sup>3</sup> (Total Dust), 5 mg/m <sup>3</sup> (Respirable Fraction) TLV: 10 mg/m <sup>3</sup> (Dust Value)

### Appropriate engineering controls

The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

### 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. Contaminated work clothing should not be allowed out of the workplace. 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: safety glasses with side-shields.

### 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

#### 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

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

### Personal protective equipment (Pictograms)



## Section 9. Physical and chemical properties

### Appearance

Physical state	Solid.
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point	Not available.
Boiling point	Not available.
Flash point	Not available.
Burning time	Not available.
Burning rate	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower and upper explosive (flammable) limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Density	Not available.
Relative density	Not available.
Solubility	Insoluble in the following materials: cold water.
Solubility in water	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
SADT	Not available.
Viscosity	Not available.

## 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	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.
Incompatible materials	Reactive or incompatible with the following materials: oxidizing materials

## Section 10. Stability and reactivity

### 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
hindered phenolic compound	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
hydroxybenzophenone compound	LD50 Dermal	Rabbit	>10000 mg/kg	-
triazole compound	LD50 Oral	Rat	>10000 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>0.59 mg/l	4 hours
	LD50 Oral	Rat	10000 mg/kg	-

#### Irritation/Corrosion

Not available.

#### Conclusion/Summary

##### Skin

hydroxybenzophenone compound: Non-irritating to the skin.  
 triazole compound: Non-irritating to the skin.  
 hindered phenolic compound: Non-irritating to the skin.

##### Eyes

hydroxybenzophenone compound: Non-irritating to the eyes.  
 triazole compound: Non-irritating to the eyes.  
 hindered phenolic compound: Non-irritating to the eyes.

#### Sensitization

Not available.

#### Conclusion/Summary

##### Skin

hydroxybenzophenone compound: May cause skin sensitization.  
 triazole compound: May cause skin sensitization.  
 hindered phenolic compound: Not expected to cause skin sensitization.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity

Not available.

#### Teratogenicity

Not available.

#### Specific target organ toxicity (single exposure)

## Section 11. Toxicological information

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

### **Information on the likely routes of exposure**

Not available.

### Potential acute health effects

<b>Eye contact</b>	No known significant effects or critical hazards.
<b>Inhalation</b>	No known significant effects or critical hazards.
<b>Skin contact</b>	May be harmful in contact with skin. May cause an allergic skin reaction.
<b>Ingestion</b>	May be harmful if swallowed.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	No specific data.
<b>Inhalation</b>	No specific data.
<b>Skin contact</b>	Adverse symptoms may include the following: irritation redness
<b>Ingestion</b>	No specific data.

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

#### Short term exposure

<b>Potential immediate effects</b>	Not available.
<b>Potential delayed effects</b>	Not available.

#### Long term exposure

<b>Potential immediate effects</b>	Not available.
<b>Potential delayed effects</b>	Not available.

### Potential chronic health effects

Not available.

<b>General</b>	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
<b>Carcinogenicity</b>	No known significant effects or critical hazards.
<b>Mutagenicity</b>	No known significant effects or critical hazards.
<b>Teratogenicity</b>	No known significant effects or critical hazards.
<b>Developmental effects</b>	No known significant effects or critical hazards.
<b>Fertility effects</b>	No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates



## Section 11. Toxicological information

Route	ATE value
Oral	5000 mg/kg
Dermal	3750 mg/kg

### Other information

Not available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
hindered phenolic compound	Acute EC50 >0.0025 mg/l	Algae	72 hours
	Acute EC50 >0.0025 mg/l	Daphnia	48 hours
	Acute EC50 >1000 mg/l	Micro-organism	3 hours
	Acute LC50 >0.00045 mg/l	Fish	96 hours
	Acute NOEC 0.0025 mg/l	Algae	72 hours
	Acute NOEC 1000 mg/l	Micro-organism	3 hours
hydroxybenzophenone compound	Acute EC50 >100 mg/l	Algae	72 hours
	Acute EC50 0.0052 mg/l	Daphnia	48 hours
triazole compound	Acute LC50 >100 mg/l	Fish	96 hours
	Acute EC50 >0.0822 mg/l	Algae	72 hours
	Acute EC50 >1000 mg/l	Daphnia	24 hours
	Acute EC50 >100 mg/l	Micro-organism	3 hours
	Acute LC50 >0.17 mg/l	Fish	96 hours
	Acute NOEC 0.013 mg/l	Daphnia	21 days
	Acute NOEC 0.17 mg/l	Fish	96 hours

### Conclusion/Summary

hydroxybenzophenone compound: No effects at its water solubility. Tested above the maximum solubility.

triazole compound: The declaration of the toxic action refers to the nominal concentration. Tested above the maximum solubility.

hindered phenolic compound: No effects at its water solubility.

### Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
hindered phenolic compound	OECD 301C	1 to 4 % - Readily - 28 days	-	-
hydroxybenzophenone compound	OECD 301B	6 % - Not readily - 28 days	-	-
triazole compound	OECD 301B	2 % - Not readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
hindered phenolic compound	-	-	Readily
hydroxybenzophenone compound	-	-	Not readily
triazole compound	-	-	Not readily

### Bioaccumulative potential

## Section 12. Ecological information

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
hindered phenolic compound	12.33	36	low
hydroxybenzophenone compound	7.6	99	low
triazole compound	4.2	123 to 494	low

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. 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
<b>DOT Classification</b>	Not regulated.	-	-	-		-
<b>TDG Classification</b>	Not regulated.	-	-	-		-
<b>ADR/RID Class</b>	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (triazole compound)	9	III	 	<b>Remarks</b> Marine pollutant

## Section 14. Transport information

<b>IMDG Class</b>	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (triazole compound)	9	III	 	<b>Remarks</b> Marine pollutant
<b>IATA-DGR Class</b>	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (triazole compound)	9	III	 	<b>Remarks</b> Marine pollutant

PG\* : Packing group

## Section 15. Regulatory information

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

### [U.S. Federal regulations](#)

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

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** Not listed

**Clean Air Act Section 602 Class I Substances** Not listed

**Clean Air Act Section 602 Class II Substances** Not listed

**DEA List I Chemicals (Precursor Chemicals)** Not listed

**DEA List II Chemicals (Essential Chemicals)** Not listed

### [SARA 302/304](#)

#### [Composition/information on ingredients](#)

No products were found.

**SARA 304 RQ** Not applicable.

### [SARA 311/312](#)

**Classification** COMBUSTIBLE DUSTS  
SKIN SENSITIZATION - Category 1

#### [Composition/information on ingredients](#)

Name	%	Classification
hydroxybenzophenone compound	25	SKIN SENSITIZATION - Category 1
triazole compound	25	SKIN SENSITIZATION - Category 1

### [State regulations](#)

**Massachusetts** None of the components are listed.

## Section 15. Regulatory information

<a href="#">New York</a>	None of the components are listed.
<a href="#">New Jersey</a>	None of the components are listed.
<a href="#">Pennsylvania</a>	None of the components are listed.
<a href="#">California Prop. 65</a>	None of the components are listed.

### [International regulations](#)

<a href="#">Australia inventory (AICS)</a>	All components are listed or exempted.
<a href="#">Canada inventory</a>	All components are listed or exempted.
<a href="#">China inventory (IECSC)</a>	All components are listed or exempted.
<a href="#">Europe inventory</a>	All components are listed or exempted.
<a href="#">Japan inventory (ENCS)</a>	All components are listed or exempted.
<a href="#">Korea inventory (KECI)</a>	All components are listed or exempted.
<a href="#">New Zealand Inventory of Chemicals (NZIoC)</a>	All components are listed or exempted.
<a href="#">Philippines inventory (PICCS)</a>	All components are listed or exempted.
<a href="#">Taiwan Chemical Substances Inventory (TCSI)</a>	All components are listed or exempted.

## Section 16. Other information

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

Health	2
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](#)

Validation date : 3/31/2020 Date of previous issue : 5/16/2019

## Section 16. Other information

**Date of printing** 3/31/2020

**Validation date** 3/31/2020

**Date of previous issue** 5/16/2019

**Version** 1

**Key to abbreviations**

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

**References**

Not available.

**Information contact**

**Vanderbilt Global Services, LLC**  
**Corporate Risk Management**

**1-203-295-2143**

Visit [www.vanderbiltchemicals.com](http://www.vanderbiltchemicals.com) for more information.

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