# **SAFETY DATA SHEET**



**Bona Activator** 

Section 1. Identification			
GHS product identifier	: Bona Activator		
Product code	: H330 -0		
Other means of identification	: Not available.		
Product type	: Liquid.		

### Relevant identified uses of the substance or mixture and uses advised against

Identified uses	
Professional application of coatings and inks by brush or roller	
Uses advised against	Reason
Consumer application of coatings	Safe use cannot be demonstrated.

Supplier's details	: BonaKemi USA, Inc. (dba Bona US) 24 Inverness Place E. Suite #100 Englewood, CO 80112 (303) 371-1411
Emergency telephone number (with hours of operation)	: 24 Hour Emergency Number: call CHEMTREC: US - 1-800-424-9300, International - 1-703-527-3887

# Section 2. Hazards identification

OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	: EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
GHS label elements	
Hazard pictograms	
Signal word	: Warning
Hazard statements	: May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation.
Precautionary statement	<u>ts</u>
Prevention	<ul> <li>Wear protective gloves: &gt; 8 hours (breakthrough time): nitrile rubber. Wear eye or face protection. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out the workplace.</li> </ul>

# Section 2. Hazards identification

Response	: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: 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 or attention.
Storage	: Store locked up. Store in a well-ventilated place. Keep container tightly closed.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified	: None known.

# Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of	: Not available.
identification	

Ingredient name	%	CAS number
Propylene carbonate	≥25 - ≤50	108-32-7
Hydrofilic, aliphatic polyisocyanate	≥25 - ≤50	160994-68-3
Hexane, 1,6-diisocyanato-, homopolymer	≥10 - ≤25	28182-81-2

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

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

### Section 4. First aid measures

Description of necessary first aid measures		
Eye contact	<ul> <li>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.</li> </ul>	
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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 necessary, call a poison center or physician. 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.	
Skin contact	: 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.	

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### Section 4. First aid measures

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: Wash out mouth with water. Remove dentures if any. 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/e	ffects, acute and delayed	
Potential acute health effe	<u>cts</u>	
Eye contact	: Causes serious eye irritation.	
Inhalation	: May cause respiratory irritation.	
Skin contact	: May cause an allergic skin reaction.	
Ingestion	: No known significant effects or critical hazards.	
<u>Over-exposure signs/symp</u>	<u>otoms</u>	
Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness	
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing	
Skin contact	: Adverse symptoms may include the following: irritation redness	
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. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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	
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
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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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. Approach release from upwind. 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. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

# Section 7. Handling and storage

Precautions for safe hand	ing			
Protective measures	history of this produ breathing respiratou alternativ	uct is used. Do not get in e vapor or mist. Use only w when ventilation is inadequ	s should not be emp yes or on skin or clo ith adequate ventila uate. Keep in the o material, kept tightly	bloyed in any process in which othing. Do not ingest. Avoid tion. Wear appropriate riginal container or an approved / closed when not in use. Empty
Advice on general occupational hygiene	handled, drinking a	and smoking. Remove con eating areas. See also Sec	rkers should wash taminated clothing a	hands and face before eating, and protective equipment before
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# Section 7. Handling and storage

Conditions for safe storage,	: Store in accordance with local regulations. Store in original container protected from
including any	direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials
incompatibilities	(see Section 10) and food and drink. Store locked up. 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**

Ingredient name	Exposure limits
Propylene carbonate	None.
Hydrofilic, aliphatic polyisocyanate	None.
Hexane, 1,6-diisocyanato-, homopolymer	ACGIH TLV (United States).
	TWA: 0.034 mg/m <sup>3</sup> 8 hours.
	TWA: 0.005 ppm 8 hours.

### **Biological exposure indices**

No exposure indices known.

Appropriate engineering controls	:	Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
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: chemical 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. 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. > 8 hours (breakthrough time): nitrile rubber

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# Section 8. Exposure controls/personal protection

Body protection	<ul> <li>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.</li> </ul>
Other skin protection	<ul> <li>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.</li> </ul>
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

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

<u>Appearance</u>		
Physical state	1	Liquid.
Color	1	Colorless.
Odor	1	Sweetish. [Slight]
Odor threshold	1	Not applicable.
рН	1	Not applicable.
Melting point/freezing point	1	Not available.
Boiling point, initial boiling point, and boiling range	:	Not available.
Flash point	:	Closed cup: >120°C (>248°F)
Flammability	:	Not applicable.
Lower and upper explosion limit/flammability limit	:	Not applicable.
Vapor pressure	1	Not available.
Relative vapor density	1	Not available.
Relative density	1	1.09
Density	1	1.09 g/cm³ [20°C (68°F)]
Solubility(ies)	1	
Media		Result
cold water hot water		Not soluble Not soluble
Solubility in water	:	Not available.

cold water hot water		Not soluble Not soluble		
Solubility in water	: Not	available.		
Partition coefficient: n- octanol/water	: Not	applicable.		
Auto-ignition temperature	: Not	applicable.		
Decomposition temperatu	re : Not	applicable.		
Viscosity	: Not	available.		
Particle characteristics Median particle size	: Not	applicable.		

# Section 10. Stability and reactivity

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

# Section 11. Toxicological information

### Information on toxicological effects

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Propylene carbonate	LD50 Dermal	Rabbit	>3000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Hydrofilic, aliphatic polyisocyanate	LD50 Oral	Rat	>2000 mg/kg	-
Hexane, 1,6-diisocyanato-, homopolymer	LC50 Inhalation Dusts and mists	Rat	18500 mg/m³	1 hours
	LD50 Dermal	Rabbit - Male, Female	>2000 mg/kg	-
	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat - Female	5000 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Propylene carbonate	Eyes - Moderate irritant	Rabbit	-	60 mg	-
	Skin - Moderate irritant	Human	-	72 hours 100 mg l	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-
Hexane, 1,6-diisocyanato-, homopolymer	Eyes - Moderate irritant	Rabbit	-	100 mg	-
1 9	Skin - Mild irritant	Rabbit	-	-	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-

#### **Sensitization**

Product/ingredient name	Route of exposure	Species	Result
Hydrofilic, aliphatic polyisocyanate Hexane, 1,6-diisocyanato-,	skin skin		Sensitizing Sensitizing
homopolymer	skin	Mouse	Sensitizing

### **Mutagenicity**

Not available.

# Section 11. Toxicological information

#### **Carcinogenicity**

Not available.

#### Reproductive toxicity

Not available.

#### **Teratogenicity**

Not available.

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

Product/ingredient name	Category	Route of exposure	Target organs
Hydrofilic, aliphatic polyisocyanate	Category 3	-	Respiratory tract irritation
Hexane, 1,6-diisocyanato-, homopolymer	Category 3	-	Respiratory tract irritation

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

Not available.

#### Aspiration hazard

Not available.

#### Information on the likely : Not available. routes of exposure

### Potential acute health effects

I Otential acute fieatti	enects
Eye contact	: Causes serious eye irritation.
Inhalation	: May cause respiratory irritation.
Skin contact	: May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.

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

Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	: Adverse symptoms may include the following: irritation redness
Ingestion	: No specific data.

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

<u>Short term exposure</u>	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Long term exposure	

## Section 11. Toxicological information

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Potential immediate effects	: Not available.			
Potential delayed effects	: Not available.			
Potential chronic health effects				

Not available.

General	: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: No known significant effects or critical hazards.

### Numerical measures of toxicity

### Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/ I)
Bona Activator	N/A	N/A	N/A	26.2	33.1
Propylene carbonate	N/A	2500	N/A	N/A	N/A
Hydrofilic, aliphatic polyisocyanate	2500	N/A	N/A	11	N/A
Hexane, 1,6-diisocyanato-, homopolymer	5000	2500	N/A	N/A	4.625

# Section 12. Ecological information

#### **Toxicity**

Product/ingredient name	Result	Species	Exposure
Propylene carbonate	EC50 >500 mg/l	Aquatic plants	72 hours
	Acute EC50 >500 mg/l	Daphnia	48 hours
	Acute LC50 5300 mg/l	Fish - Leuciscus Idus	96 hours
Hydrofilic, aliphatic polyisocyanate	Acute EC50 >100 mg/l	Daphnia	48 hours
, , ,	Acute IC50 >100 mg/l	Algae	72 hours
	Acute LC50 28.3 mg/l	Fish	96 hours
Hexane, 1,6-diisocyanato-, homopolymer	Acute EC50 >1000 mg/l	Algae	72 hours
	Acute EC50 >100 mg/l Acute LC50 >100 mg/l	Daphnia Fish	48 hours 96 hours

#### Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Propylene carbonate Hydrofilic, aliphatic	-	-	Readily Not readily
polyisocyanate Hexane, 1,6-diisocyanato-, homopolymer	-	-	Not readily

#### **Bioaccumulative potential**

# Section 12. Ecological information

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Product/ingredient name	LogPow	BCF	Potential	
Propylene carbonate Hexane, 1,6-diisocyanato-, homopolymer	-0.41 5.54	- 367.7	low low	

### Mobility in soil

Soil/water partition	: Not available.
coefficient (Koc)	

Other adverse effects : No known significant effects or critical hazards.

### Section 13. Disposal considerations

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Disposal methods
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: 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.

### Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not available. to IMO instruments

### Section 15. Regulatory information

<u> </u>		
U.S. Federal regulations	Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined	
	TSCA 8(c) calls for record of SAR: hexamethylene-di-isocyanate	
	Clean Water Act (CWA) 307: hexamethylene-di-isocyanate	
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	: 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	
<u>SARA 302/304</u>		
Composition/information	on ingredients	
No products were found.		
SARA 304 RQ	: Not applicable.	
<u>SARA 311/312</u>		
Classification	: EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	
Composition/information on ingredients		

#### % Name Classification Propylene carbonate ≥25 - ≤50 EYE IRRITATION - Category 2A ACUTE TOXICITY (inhalation) - Category 4 Hydrofilic, aliphatic ≥25 - ≤50 SKIN SENSITIZATION - Category 1 polyisocyanate SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 ACUTE TOXICITY (inhalation) - Category 4 Hexane, 1,6-diisocyanato-, ≥10 - ≤25 homopolymer SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

#### 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	

This product does not require a Safe Harbor warning under California Prop. 65.

### International regulations

### <u>Chemical Weapon Convention List Schedules I, II & III Chemicals</u> Not listed.

### Montreal Protocol

# Section 15. Regulatory information

Not listed.

### Stockholm Convention on Persistent Organic Pollutants Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC) Not listed.

### **UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

### **Inventory list**

<u>Inventory iist</u>	
Australia	: Not determined.
Canada	: At least one component is not listed in DSL but all such components are listed in NDSL.
China	: Not determined.
<b>Eurasian Economic Union</b>	: Russian Federation inventory: All components are listed or exempted.
Japan	: Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	: All components are listed or exempted.
Philippines	: Not determined.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Thailand	: All components are listed or exempted.
Turkey	: Not determined.
United States	: All components are active or exempted.
Viet Nam	: All components are listed or exempted.

### Section 16. Other information

### Hazardous Material Information System (U.S.A.)

Health	1	2	
Flammability			
Physical hazards			

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. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. 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.)



Procedure used to derive the classification

### Section 16. Other information

	Classification		Justification
EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3		Calculation method Calculation method Calculation method	
<u>History</u>			
Date of printing	:	2/8/2023	
Date of issue/Date of revision	:	2/8/2023	
Date of previous issue	:	2/8/2023	
Version	:	1.01	
Key to abbreviations	:	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification IATA = International Air Transport Association IBC = International Air Transport Association IBC = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition co MARPOL = International Convention for the Preven as modified by the Protocol of 1978. ("Marpol" = ma N/A = Not available SGG = Segregation Group UN = United Nations	pefficient tion of Pollution From Ships, 1973
Deferences	_	Not available	

References

: Not available.

**Indicates information that has changed from previously issued version.** 

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.