

# **SAFETY DATA SHEET**

### High Solids Abrasion Resistant CTG 23T3-106

### **Section 1. Identification**

GHS product identifier Other means of identification	<ul> <li>High Solids Abrasion Resistant CTG 23T3-106</li> <li>23T3-106_Gray DN 3635 #716980</li> </ul>
Relevant identified uses of the	substance or mixture and uses advised against : FOR INDUSTRIAL USE ONLY
Supplier/Manufacturer	: Akzo Nobel Coatings, Inc. 1 East Water Street Waukegan, IL 60085 USA Tel. 1 847 623 4200 Email: customer. service@akzonobel.com
Canadian Supplier	<ul> <li>Akzo Nobel Coatings Ltd.</li> <li>110 Woodbine Downs Blvd.</li> <li>Unit #4 Etobicoke, Ontario</li> <li>Canada M9W 5S6</li> <li>+1 (800) 618-1010</li> </ul>
Emergency telephone number	: CHEMTREC +1 (800) 424-9300 (Inside the US) CHEMTREC International +1 (703) 527-3887 (Outside the US, collect calls accepted)
Date of issue / Date of revision Safety Data Sheet Version Date of printing	<ul> <li>: 12 September 2018</li> <li>: 2.01</li> <li>: 12 September 2018</li> </ul>

Akzo Nobel Coatings Inc. encourages and expects you to read and understand this entire MSDS, as there is important information throughout the document. Further, Akzo Nobel Coatings Inc. expects you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

To promote safe handling, each customer or recipient should: 1) Notify its employees, agents, contractors, and others whom it knows or believes will use this material of the information contained in this MSDS and any other information regarding hazards and safety; 2) Furnish this same information to each of its customers for the product; 3) Request its customers to notify their employees, customers, and other users of the product of this information; and 4) Notify its employees, agents, contractors, and others that the precautions identified for this product and any other products with which mixtures may be created are transferable and cumulative to the mixture.

## Section 2. Hazards identification

OSHA/HCS status	<ul> <li>This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).</li> </ul>
Classification of the substance or mixture	: FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A CARCINOGENICITY - Category 1A

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Section 2. Hazar	ds identification
GHS label elements Hazard pictograms	
Signal word Hazard statements	<ul> <li>Danger</li> <li>Flammable liquid and vapor. Causes serious eye irritation. Causes skin irritation. May cause cancer.</li> </ul>
Precautionary statements	2
Prevention	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Keep container tightly closed. Wash hands thoroughly after handling.
Response	: IF exposed or concerned: Get medical attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical 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 attention.
Storage	: Store locked up. Store in a well-ventilated place. Keep cool.
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

: Mixture

Substance/mixture

Ingredient name	%	CAS number
titanium dioxide	15 - 20	13463-67-7
n-butyl acetate	15 - 20	123-86-4
heptan-2-one	10 - 15	110-43-0
2-methoxy-1-methylethyl acetate	1 - 5	108-65-6
cristobalite	1 - 5	14464-46-1
silicon dioxide	1 - 5	7631-86-9
Castor oil	1 - 5	8001-79-4
carbon black, respirable powder	0 - 1	1333-86-4
crystalline silica, respirable powder	0 - 1	14808-60-7

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 as hazardous to health or the environment and hence require reporting in this section.

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## Section 3. Composition/information on ingredients

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

## Section 4. First aid measures

Description of necess	ary 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. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	: 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 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.
Skin contact	Flush contaminated skin with plenty of 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. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: 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. 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	
Eye contact	Causes serious eye irritation.
Inhalation :	No known significant effects or critical hazards.
Skin contact	Causes skin irritation.
Ingestion :	No known significant effects or critical hazards.
Over-exposure signs/symptor	ns
Eye contact :	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation :	No specific data.
Skin contact :	Adverse symptoms may include the following: irritation redness
Ingestion	No specific data.
Indication of immediate medica	al attention and special treatment needed, if necessary

Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large
		quantities have been ingested or inhaled.

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# Section 4. First aid measures

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)

Extinguishing media       : Use dry chemical, CO2, water spray (fog) or foam.         media       : Do not use water jet.         media       : Do not use water jet.         Specific hazards arising from the chemical       : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer ma create fire or explosion hazard.         Hazardous thermal decomposition products       : Decomposition products
media       Unsuitable extinguishing media       : Do not use water jet.         Specific hazards arising from the chemical       : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer ma create fire or explosion hazard.         Hazardous thermal decomposition products       : Decomposition products may include the following materials: carbon dioxide
media       Specific hazards arising from the chemical       : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer ma create fire or explosion hazard.         Hazardous thermal decomposition products       : Decomposition products may include the following materials: carbon dioxide
from the chemicalthe container may burst, with the risk of a subsequent explosion. Runoff to sewer ma create fire or explosion hazard.Hazardous thermal decomposition productsDecomposition products may include the following materials: carbon dioxide
decomposition products carbon dioxide
halogenated compounds metal oxide/oxides
<b>Special protective actions</b> <b>for fire-fighters</b> : 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.
<b>Special protective</b> <b>equipment for fire-fighters</b> : Fire-fighters should wear appropriate protective equipment and self-contained breathin apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

Personal precautions, protect	ve 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. Shut off all ignition sources. No flares, smoking or flames in hazard area. 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).

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### Section 6. Accidental release measures

Methods and materials for containment and cleaning up

Small spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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. Use spark-proof tools and explosion-proof equipment. 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

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Precautions for safe handling	1
Protective measures	: Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. 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. Store locked up. 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.

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# Section 8. Exposure controls/personal protection

### **Control parameters**

**Occupational exposure limits** 

Ingredient name	Exposure limits
titanium dioxide	OSHA PEL (United States, 6/2016).
	TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total dust <b>ACGIH TLV (United States, 3/2016).</b>
	TWA: 10 mg/m <sup>3</sup> 8 hours.
n-butyl acetate	NIOSH REL (United States, 10/2016).
	STEL: 950 mg/m <sup>3</sup> 15 minutes.
	STEL: 200 ppm 15 minutes.
	TWA: 710 mg/m³ 10 hours. TWA: 150 ppm 10 hours.
	OSHA PEL (United States, 6/2016).
	TWA: 710 mg/m <sup>3</sup> 8 hours.
	TWA: 150 ppm 8 hours.
	ACGIH TLV (United States, 3/2016).
	STEL: 150 ppm 15 minutes.
	TWA: 50 ppm 8 hours.
heptan-2-one	ACGIH TLV (United States, 3/2016).
	TWA: 233 mg/m <sup>3</sup> 8 hours.
	TWA: 50 ppm 8 hours. NIOSH REL (United States, 10/2016).
	TWA: 465 mg/m <sup>3</sup> 10 hours.
	TWA: 100 ppm 10 hours.
	OSHA PEL (United States, 6/2016).
	TWA: 465 mg/m <sup>3</sup> 8 hours.
	TWA: 100 ppm 8 hours.
2-methoxy-1-methylethyl acetate	AIHA WEEL (United States, 10/2011).
	TWA: 50 ppm 8 hours.
cristobalite	OSHA PEL Z3 (United States, 6/2016).
	TWA: 250 mppcf / 2 x (%SiO2+5) 8 hours.
	Form: Respirable
	TWA: 10 mg/m³ / 2 x (%SiO2+2) 8 hours. Form: Respirable
	TWA: 30 mg/m <sup>3</sup> / 2 x (%SiO2+2) 8 hours.
	Form: Total dust
	OSHA PEL (United States, 6/2016).
	TWA: 50 µg/m³ 8 hours. Form: Respirable
	dust
	ACGIH TLV (United States, 3/2016). TWA: 0.025 mg/m <sup>3</sup> 8 hours. Form:
	Respirable fraction
	NIOSH REL (United States, 10/2016).
	TWA: 0.05 mg/m <sup>3</sup> 10 hours. Form: respirable
	dust
silicon dioxide	NIOSH REL (United States, 10/2016).
-	TWA: 6 mg/m <sup>3</sup> 10 hours.
Castor oil	None.
carbon black, respirable powder	ACGIH TLV (United States, 3/2016).
	TWA: 3 mg/m <sup>3</sup> 8 hours. Form: Inhalable

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# Section 8. Exposure controls/personal protection

	fraction NIOSH REL (United States, 10/2016). TWA: 3.5 mg/m <sup>3</sup> 10 hours. TWA: 0.1 mg of PAHs/cm <sup>3</sup> 10 hours. OSHA PEL (United States, 6/2016). TWA: 3.5 mg/m <sup>3</sup> 8 hours.
crystalline silica, respirable powder	OSHA PEL Z3 (United States, 6/2016). TWA: 250 mppcf / (%SiO2+5) 8 hours. Form: Respirable TWA: 10 mg/m³ / (%SiO2+2) 8 hours. Form: Respirable OSHA PEL (United States, 6/2016). TWA: 50 µg/m³ 8 hours. Form: Respirable dust ACGIH TLV (United States, 3/2016). TWA: 0.025 mg/m³ 8 hours. Form: Respirable fraction NIOSH REL (United States, 10/2016). TWA: 0.05 mg/m³ 10 hours. Form: respirable dust

Appropriate engineering controls	: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. 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.

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: 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.

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# Section 8. Exposure controls/personal protection

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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
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.

# Section 9. Physical and chemical properties

Appearance		
Physical state 🗉	:	Liquid.
Color :	:	Gray.
Odor :	:	Solvent.
Odor threshold :	:	Not available.
pH :	:	Not available.
Melting/freezing point	:	Not available.
Boiling point :	:	126°C (258.8°F)
boiling range	:	Not available.
Flash point	:	Closed cup: 27°C (80.6°F)
Evaporation rate	:	Not available.
Flammability (solid, gas)	:	Not available.
Upper/lower flammability or expl		
••		Not determined.
Lower: :	-	
Vapor pressure	:	Not available.
Vapor density	:	Not available.
Relative density	:	1.393
•		11.63 lbs/gal 1.393 g/cm <sup>3</sup>
···· <b>·</b>		Not available.
,	:	Not available.
Partition coefficient: n-	:	Not available.
Auto-ignition temperature	:	Not available.
Decomposition temperature	:	Not available.
Viscosity	:	Kinematic (room temperature): 3.95 cm <sup>2</sup> /s (395 cSt)
Weight Volatiles :	:	32.2% (w/w)
Volume Volatiles :	:	52.19 %(v/v)
Weight Solids :	:	67.80 %(w/w)
Volume Solids :	:	47.81 %(v/v)

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Section 9. Physic	al and chemical properties
Regulatory VOC	: 3.7 lbs/gal 448 g/l minus water and exempt solvents
VOC Actual	: 3.7 lbs/gal 447 g/l
Section 10. Stabil	ity 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 all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products shoul not be produced.

# Section 11. Toxicological information

### Information on toxicological effects

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
n-butyl acetate	LC50 Inhalation Vapor	Rat	390 ppm	4 hours
-	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-
heptan-2-one	LD50 Oral	Rat	1600 mg/kg	-
2-methoxy-1-methylethyl acetate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	8532 mg/kg	-
Castor oil	LD50 Oral	Rat	10 g/kg ັ	-
carbon black, respirable powder	LD50 Oral	Rat	>15400 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
titanium dioxide	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent	
n-butyl acetate	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
heptan-2-one	Skin - Mild irritant	Rabbit	-	24 hours 14 milligrams	-
silicon dioxide	Eyes - Mild irritant	Rabbit	-	24 hours 25	-

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## Section 11. Toxicological information

Castor oil	Eyes - Mild irritant	Rabbit	-	milligrams 500	-
				milligrams	
	Skin - Mild irritant	Guinea pig	-	24 hours 100 milligrams	-
	Skin - Mild irritant	Man	-	48 hours 50 milligrams	-
	Skin - Mild irritant	Rat	-	24 hours 100 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 100 milligrams	-

### **Sensitization**

Not available.

### **Mutagenicity**

Not available.

#### **Carcinogenicity**

Not available.

### **Classification**

Product/ingredient name	OSHA	IARC	NTP
titanium dioxide	-	2B	-
cristobalite	-	1	Known to be a human carcinogen.
silicon dioxide	-	3	-
carbon black, respirable	-	2B	-
powder			
crystalline silica, respirable	-	1	Known to be a human carcinogen.
powder			

### **Reproductive toxicity**

Not available.

#### **Teratogenicity**

Not available.

### Specific target organ toxicity (single exposure)

Not available.

### <u>Specific target organ toxicity (repeated exposure)</u> Not available.

#### Aspiration hazard

Not available.

Eye contact

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

### Potential acute health effects

: Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

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Section 11. Toxico	ological information			
Skin contact	: Causes skin irritation.			
Ingestion	: No known significant effects or critical hazards.			
Symptoms related to the phy	vsical, chemical and toxicological characteristics			
Eye contact	<ul> <li>Adverse symptoms may include the following: pain or irritation watering redness</li> </ul>			
Inhalation	: No specific data.			
Skin contact	: Adverse symptoms may include the following: irritation redness			
Ingestion	: No specific data.			
Delayed and immediate effect	cts 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				
Potential immediate effects	: Not available.			
Potential delayed effects	: Not available.			
Potential chronic health eff	ects			

Potential chronic health effects

Not available.

General	: No known significant effects or critical hazards.
Carcinogenicity	: May cause cancer. Risk of cancer depends on duration and level of exposure.
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

Route	ATE value	
Oral	4890.7 mg/kg	

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# Section 12. Ecological information

### **Toxicity**

Product/ingredient name	Result	Species	Exposure
n-butyl acetate	Acute LC50 32 mg/l Marine water Acute LC50 62000 µg/l	Crustaceans - Artemia salina Fish - Danio rerio	48 hours 96 hours
heptan-2-one	Acute LC50 131000 to 137000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
carbon black, respirable powder	Acute EC50 37.563 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours

### Persistence and degradability

Not available.

#### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
n-butyl acetate heptan-2-one	2.3 2.26	-	low low
2-methoxy-1-methylethyl acetate	1.2	-	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

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
	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. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been
	cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

**Special precautions for user** : Please Note: The information provided in section 14 is based on a bulk package shipment via ground transport in North America. All shippers are responsible for ensuring the proper transportation classification and package/container requirements are followed for the relevant mode of transport.

**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.

	DOT Classification	TDG Classification	Mexico Classification	IMDG	ΙΑΤΑ
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3	3	3
Packing group	Ш	Ш	Ш	111	III
Environmental hazards	No.	No.	No.	No.	No.

## Section 15. Regulatory information

### U.S. Federal regulations

United States inventory (TSCA 8b): All components are listed or exempted.

### SARA 311/312

Classification

: Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard

#### California Prop. 65

**WARNING:** This product contains a chemical known to the State of California to cause cancer. **WARNING:** This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

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## Section 15. Regulatory information

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
titanium dioxide	Yes.	No.	No.	No.
cristobalite	Yes.	No.	No.	No.
carbon black, respirable powder	Yes.	No.	No.	No.
toluene	No.	Yes.	No.	7000 μg/day (ingestion)
ethylbenzene	Yes.	No.	No.	No.
cumene	Yes.	No.	No.	No.

### International lists

National inventory	
Australia	At least one component is not listed.
Canada	All components are listed or exempted.
China	At least one component is not listed.
Europe	At least one component is not listed.
Japan	Japan inventory (ENCS): At least one component is not listed. Japan inventory (ISHL): At least one component is not listed.
Malaysia	At least one component is not listed.
New Zealand	At least one component is not listed.
Philippines	At least one component is not listed.
Republic of Korea	At least one component is not listed.
Taiwan	At least one component is not listed.
Turkey	At least one component is not listed.

## Section 16. Other information

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



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 are not required on SDSs 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 mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

#### National Fire Protection Association (U.S.A.)

For additional information call Akzo Nobel at (847) 625-4200

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### Section 16. Other information



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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.

#### <u>History</u>

Date of issue/Date of revision Version MSDS #	:	12 September 2018 2.01 008085	0008		00010F9B40
Key to abbreviations	:	IATA = International A IBC = Intermediate Bu IMDG = International M LogPow = logarithm of	on Factor onized Syster ir Transport / Ik Container Maritime Dan f the octanol/ nal Conventic	Associatio gerous G water par on for the	oods tition coefficient Prevention of Pollution From Ships, 1973 as

#### 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.

For additional information call Akzo Nobel at (847) 625-4200



# **SAFETY DATA SHEET**

### High Solids Abrasion Resistant CTG PC-216

## Section 1. Identification

GHS product identifier Other means of identification	<ul> <li>High Solids Abrasion Resistant CTG PC-216</li> <li>PC-216_Abrasion Resistant Cure Solution</li> </ul>
Relevant identified uses of the	substance or mixture and uses advised against : FOR INDUSTRIAL USE ONLY
Supplier/Manufacturer	: Akzo Nobel Coatings, Inc. 1 East Water Street Waukegan, IL 60085 USA Tel. 1 847 623 4200 Email: customer. service@akzonobel.com
Canadian Supplier	: Akzo Nobel Coatings Ltd. 110 Woodbine Downs Blvd. Unit #4 Etobicoke, Ontario Canada M9W 5S6 +1 (800) 618-1010
Emergency telephone number	: CHEMTREC +1 (800) 424-9300 (Inside the US) CHEMTREC International +1 (703) 527-3887 (Outside the US, collect calls accepted)
Date of issue / Date of revision Safety Data Sheet Version Date of printing	

Akzo Nobel Coatings Inc. encourages and expects you to read and understand this entire MSDS, as there is important information throughout the document. Further, Akzo Nobel Coatings Inc. expects you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

To promote safe handling, each customer or recipient should: 1) Notify its employees, agents, contractors, and others whom it knows or believes will use this material of the information contained in this MSDS and any other information regarding hazards and safety; 2) Furnish this same information to each of its customers for the product; 3) Request its customers to notify their employees, customers, and other users of the product of this information; and 4) Notify its employees, agents, contractors, and others that the precautions identified for this product and any other products with which mixtures may be created are transferable and cumulative to the mixture.

## Section 2. Hazards identification

OSHA/HCS status	<ul> <li>This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).</li> </ul>
Classification of the substance or mixture	: FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A

#### **GHS label elements**

For additional information call Akzo Nobel at (847) 625-4200

P	ad	e:	2	1	3

Hazard pictograms	
Signal word	: Warning
Hazard statements	: Flammable liquid and vapor. Causes serious eye irritation. Causes skin irritation.
Precautionary statements	
Prevention	: Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Keep container tightly closed. Wash hands thoroughly after handling.
Response	: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical 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 attention.
Storage	: Store in a well-ventilated place. Keep cool.
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

: Mixture

Substance/mixture

Ingredient name	%	CAS number
······································	70 - 75 25 - 30	28182-81-2 123-86-4

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 as hazardous to health or the environment 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

: 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.

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Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it
	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. In the event of any complaints or symptoms, avoid further exposure.
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.
Ingestion	: 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 necessary, call a poison center or physician. 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.
	effects, acute and delayed
Potential acute health effe	<u>ects</u>
Eye contact	: Causes serious eye irritation.
Inhalation	: Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Ingestion	: Can cause central nervous system (CNS) depression.

### Over-exposure signs/symptoms

Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing wheezing and breathing difficulties asthma nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness

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Section 4. First aid measures	
Skin contact	: Adverse symptoms may include the following: irritation redness
Ingestion	: No specific data.
Indication of immediate med	dical 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 dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
Unsuitable extinguishing media	: Do not use water jet.
Specific hazards arising from the chemical	: Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
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. 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.
1	

## 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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put
	on appropriate personal protective equipment.

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# Section 6. Accidental release measures

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 con	ntainment and cleaning up
Small spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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. Use spark-proof tools and explosion-proof equipment. 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 handling	
Protective measures	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease 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 breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. 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. Store locked up. 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

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## Section 7. Handling and storage

contamination.

# Section 8. Exposure controls/personal protection

### **Control parameters**

**Occupational exposure limits** 

Exposure limits
Exposure limits         None.         ACGIH TLV (United States, 3/2015).         STEL: 200 ppm 15 minutes.         TWA: 150 ppm 8 hours.         NIOSH REL (United States, 10/2013).         STEL: 950 mg/m³ 15 minutes.         STEL: 200 ppm 15 minutes.         STEL: 200 ppm 15 minutes.         STEL: 200 ppm 15 minutes.         TWA: 710 mg/m³ 10 hours.         TWA: 150 ppm 10 hours.         OSHA PEL (United States, 2/2013).
TWA: 710 mg/m <sup>3</sup> 8 hours. TWA: 150 ppm 8 hours.

Appropriate engineering controls	: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. 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 meas	<u>sures</u>
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.

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# Section 8. Exposure controls/personal protection

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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
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.

# Section 9. Physical and chemical properties

Appearance				
Physical state	:	Liquid.		
Color		Colorless.		
Odor	:	Solvent.		
Odor threshold	: Not available.			
рН	:	Not available.		
Melting/freezing point	:	Not available.		
Boiling point	:	126°C (258.8°F)		
boiling range	:	Not available.		
Flash point	:	Closed cup: 27°C (80.6°F)		
Evaporation rate	:	Not available.		
Flammability (solid, gas)	:	Not available.		
Upper/lower flammability or exp	plo	osive limits		
Upper:	:	: Not determined.		
Lower:	:	Not determined.		
Vapor pressure	:	Not available.		
Vapor density	:	Not available.		
Relative density	:	1.067		
Density	:	8.90 lbs/gal 1.067 g/cm <sup>3</sup>		
Solubility	:	Not available.		
Solubility in water	:	Not available.		
Partition coefficient: n- octanol/water		Not available.		
Auto-ignition temperature		Not available.		
Decomposition temperature		: Not available.		
Viscosity	:	Kinematic (room temperature): 1.69 cm <sup>2</sup> /s (169 cSt)		
Weight Volatiles	:	27.44% (w/w)		
Volume Volatiles	olatiles : 33.24 %(v/v)			
Weight Solids	:	72.56 %(w/w)		

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Section 9. Physica	al and chemical properties			
Volume Solids	: 66.76 %(v/v)			
Regulatory VOC	: 2.4 lbs/gal 293 g/l minus water and exempt solvents			
VOC Actual	: 2.4 lbs/gal 293 g/l			
Section 10. Stabili	ity 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 all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.			
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials			
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
,	LC50 Inhalation Vapor LD50 Dermal LD50 Oral	Rabbit	390 ppm >17600 mg/kg 10768 mg/kg	4 hours - -

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Hexamethylene diisocyanate, oligomers	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-
-	Skin - Moderate irritant	Rabbit	-	500 milligrams	-
n-butyl acetate	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-

### Sensitization

Not available.

### **Mutagenicity**

Not available.

#### **Carcinogenicity**

For additional information call Akzo Nobel at (847) 625-4200

# Section 11. Toxicological information

Not available.

### Reproductive toxicity

Not available.

### **Teratogenicity**

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Hexamethylene diisocyanate, oligomers			Respiratory tract irritation
n-butyl acetate hexamethylene-di-isocyanate	0,	The second secon	Narcotic effects Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

Information on the likely routes of exposure	: Not available.
Potential acute health effect	<u>§</u>
Eye contact	: Causes serious eye irritation.
Inhalation	: Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Ingestion	: Can cause central nervous system (CNS) depression.
<u>Symptoms related to the phy</u> Eye contact	<ul> <li><i>rsical, chemical and toxicological characteristics</i></li> <li>Adverse symptoms may include the following: pain or irritation watering redness</li> </ul>
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing wheezing and breathing difficulties asthma nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness

Section 11. Toxicological information				
Skin contact	: Adverse symptoms may include the following: irritation redness			
Ingestion	: No specific data.			
Delayed and immediate effe	cts 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				
Potential immediate effects	: Not available.			
Potential delayed effects	: Not available.			
Potential chronic health eff	<u>iects</u>			
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.			
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

Route	ATE value
Inhalation (vapors)	6210.9 ppm 15.18 mg/l
Inhalation (dusts and mists)	2.07 mg/l

# Section 12. Ecological information

### <u>Toxicity</u>

Product/ingredient name	Result	Species	Exposure
n-butyl acetate	Acute LC50 32000 μg/l Marine water	Crustaceans - Artemia salina - Nauplii	48 hours
	Acute LC50 62000 μg/l	Fish - Danio rerio	96 hours

### Persistence and degradability

Not available.

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## Section 12. Ecological information

Bioaccumulative potential					
Product/ingredient name	LogPow	BCF	Potential		
Hexamethylene diisocyanate, oligomers	5.54	367.7	low		
n-butyl acetate	2.3	-	low		
hexamethylene-di-isocyanate	0.02	57.63	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

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. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact
	cleaned thoroughly internally. Avoid dispersal of spliled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

**Special precautions for user** : Please Note: The information provided in section 14 is based on a bulk package shipment via ground transport in North America. All shippers are responsible for ensuring the proper transportation classification and package/container requirements are followed for the relevant mode of transport.

**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.

	DOT Classification	TDG Classification	Mexico Classification	IMDG	ΙΑΤΑ
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL

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Section 14. Transport		ort informa		3	3
hazard class(es)	-				
Packing group	Ш	111	III	111	111
Environmental hazards	No.	No.	No.	No.	No.

# Section 15. Regulatory information

#### U.S. Federal regulations

United States inventory (TSCA 8b): All components are listed or exempted.

<u>SARA</u>	<u>311</u>	1/31	2

Classification	:	Fire hazard		
		Immediate (acute) health hazard		

International lists	
National inventory	
Australia	: All components are listed or exempted.
Canada	: All components are listed or exempted.
China	: All components are listed or exempted.
Europe	: All components are listed or exempted.
Japan	: Japan inventory (ENCS): All components are listed or exempted. Japan inventory (ISHL): At least one component is not listed.
Malaysia	: All components are listed or exempted.
New Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Turkey	: All components are listed or exempted.

## Section 16. Other information

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

Health	*	2
Flammability		3
Physical hazards		0

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### Section 16. Other information

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The customer is responsible for determining the PPE code for this material.

#### National Fire Protection Association (U.S.A.)



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#### **History**

Date of issue/Date of revision Version MSDS #	:	26 June 2019 2.14 007894	0007	00220A4B60
Key to abbreviations	:	IATA = International Air T IBC = Intermediate Bulk ( IMDG = International Mar LogPow = logarithm of th	Factor zed System of Class ransport Associatic Container itime Dangerous G e octanol/water par Convention for the	oods tition coefficient Prevention of Pollution From Ships, 1973 as

#### 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.

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