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SECTION 1. IDENTIFICATION

Product name	:	Milliken Barrier Coating
Product code	:	
Manufacturer or supplier's	detai	ils
Company name of supplier	:	Milliken & Company
Address	-	920 Milliken Rd Spartanburg SC 29303
Telephone	:	+1-864-503-1940 (M-F, 8-5 EST)
E-mail address	:	sds@milliken.com
Emergency telephone number		In case of emergency call CHEMTREC US: 1-800-424-9300, CHEMTREC WORLD: 1-703-527-3887.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification Skin irritation Eye irritation	Category 2 Category 2B
GHS label elements Hazard pictograms	
Signal word	Warning
Hazard statements	H315 + H320 Causes skin and eye irritation.
Precautionary statements	 Prevention: P264 Wash skin thoroughly after handling. P280 Wear protective gloves. Response: P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P332 + P313 If skin irritation occurs: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention. P362 Take off contaminated clothing and wash before reuse.

Other hazards

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None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration (%)
Proprietary acrylic copolymer emulsion	Not Assigned	>= 30 - < 50
Kaolin Clay	1332-58-7	>= 5 - < 10
Titanium Dioxide	13463-67-7	>= 0.1 - < 1

SECTION 4. FIRST AID MEASURES

General advice	 Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended. 	
If inhaled	 If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician. 	
In case of eye contact	 Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist. 	
If swallowed	 Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. 	
Most important symptoms and effects, both acute and delayed	: Causes skin and eye irritation.	

SECTION 5. FIREFIGHTING MEASURES

Unsuitable extinguishing media	:	High volume water jet
Further information	:	Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

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Personal precautions, protective equipment and emergency procedures		:	: Use personal protective equipment.		
Envi	ronmental precautions	:		ge or spillage if safe to do so. inates rivers and lakes or drains inform	
	nods and materials for ainment and cleaning up	:	acid binder, universal	sorbent material (e.g. sand, silica gel, binder, sawdust). ed containers for disposal.	

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	: Normal measures for preventive fire protection.
Advice on safe handling	 Avoid formation of aerosol. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	 Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Kaolin Clay	1332-58-7	TWA (Respirable fraction)	2 mg/m3	ACGIH
		TWA (Respirable)	5 mg/m3	NIOSH REL
		TWA (total)	10 mg/m3	NIOSH REL
		TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (Total dust)	10 mg/m3	OSHA P0

Components with workplace control parameters

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			TWA (respirable dust fraction)	5 mg/m3	OSHA P0
Titani	um Dioxide	13463-67-7	TWA (total dust)	15 mg/m3	OSHA Z-1
			TWÁ (Total dust)	10 mg/m3	OSHA P0
			TWÁ	10 mg/m3 (Titanium dioxide)	ACGIH
			PEL (Total dust)	10 mg/m3 (Titanium)	CAL PEL
			PEL (respirable dust fraction)	5 mg/m3 (Titanium)	CAL PEL
Perso	onal protective equip	oment			
Respi	ratory protection	: In the case o approved filte		on use a respirator wi	th an
Hand	protection				
Rei	marks		y for a specific w lucers of the prot	orkplace should be d ective gloves.	iscussed
Еуе р	rotection		ttle with pure wa safety goggles	ter	

	Tightly fitting safety goggles
Skin and body protection	: Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	: Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	light pink
Odour	:	characteristic
Melting point/range	:	0 °C
Boiling point/boiling range	:	100 - 188 °C

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: No decomposition if stored and applied as directed.
Possibility of hazardous reactions	: No decomposition if stored and applied as directed.

SAFETY DATA SHEET

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Conditions to avoid

: No data available

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes eye irritation.

Product:

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information. Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Product:

Remarks: This product contains Titanium Dioxide, which is listed by IARC as a Group 2B – possibly carcinogenic to humans by IARC. No significant inhalation exposure is expected to occur during use of products in which Titanium Dioxide is present in a liquid dispersion or bound to other materials, such as in masterbatches. Risk of overexposure depends on actual concentration in the formula and duration and level of exposure to dust from sanding or similar machining operations. Refer to Section 8 respiratory protection information.

In lifetime inhalation studies of rats, airborne respirable-size titanium dioxide particles have been shown to cause an increase in lung tumors at concentrations associated with substantial particle lung burdens and consequential pulmonary overload and inflammation. The potential for these adverse health effects appears to be closely related to the particle size and the amount of the exposed surface area that comes in contact with the lung. However, tests with other laboratory animals, such as mice and hamsters, indicate that rats are significantly more susceptible to the pulmonary overload and inflammation that causes lung cancer. Epidemiology studies do not suggest an increased risk of cancer in humans from occupational inhalation exposure to pigmentary titanium dioxide. Titanium dioxide has been listed by IARC as possibly carcinogenic to humans – Group 2B (via inhalation). OSHA or NTP do not classify titanium dioxide as a potential carcinogen.

Carcinogenicity - Assessment	: Weight of evidence does not support classificatio carcinogen	in as a
IARC	Group 2B: Possibly carcinogenic to humans	
	Titanium Dioxide	13463-67-7
OSHA	No component of this product present at levels grea	ater than or

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		equal to 0.1% is on	OSHA's list of regulated carcinogens.
NTP			nis product present at levels greater than or entified as a known or anticipated carcinoger
•	oductive toxicity lassified based on avail	able information.	
	F - single exposure lassified based on avail	able information.	
	F - repeated exposure lassified based on avail	able information.	
-	ration toxicity lassified based on avail	able information.	
Furth	ner information		
<u>Prod</u> Rema	arks: No data available		
Rema		ORMATION	
Rema CTION Ecote	arks: No data available 12. ECOLOGICAL INF	ORMATION	
Rema CTION Ecote No da Pers	arks: No data available 12. ECOLOGICAL INF oxicity		
Rema CTION Ecote No da Persi No da Bioa	arks: No data available 12. ECOLOGICAL INF oxicity ata available istence and degradabi		
Rema CTION Ecota No da Persi No da Bioa No da Mobi	arks: No data available 12. ECOLOGICAL INF oxicity ata available istence and degradabi ata available ccumulative potential		
Rema CTION Ecota No da No da No da No da	arks: No data available 12. ECOLOGICAL INF oxicity ata available istence and degradabi ata available ccumulative potential ata available lity in soil		
Rema CTION Ecota No da Bioa No da Mobi No da Othe Prod	arks: No data available 12. ECOLOGICAL INF oxicity ata available istence and degradabi ata available ccumulative potential ata available lity in soil ata available r adverse effects	lity : Regulation: 40 C Protection of Str Substances Remarks: This p manufactured wi	CFR Protection of Environment; Part 82 atospheric Ozone - CAA Section 602 Class product neither contains, nor was ith a Class I or Class II ODS as defined by t cct Section 602 (40 CFR 82, Subpt. A, App./

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

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Waste	e from residues	Do not contamin chemical or used	of waste into sewer. ate ponds, waterways or ditches with d container. ed waste management company.
Conta	minated packaging	: Empty remaining Dispose of as ur Do not re-use er	hused product.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG Not regulated as a dangerous good

IATA-DGR Not regulated as a dangerous good

IMDG-Code Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable for product as supplied.

National Regulations

49 CFR Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Ethylene Glycol	107-21-1	5000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards	:	Skin corrosion or irritation Serious eye damage or eye irritation
SARA 302	:	This material does not contain any components with a section 302 EHS TPQ.
SARA 313	:	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

California Prop 65

WARNING! This product contains a chemical known to the State of California to cause cancer. 13463-67-7

Titanium Dioxide

SECTION 16. OTHER INFORMATION

Further information

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Please Note: As each customer's use of our product may be different, information we provide, including without limitation, any regulatory information, recommendations, test results, samples, care/labeling/processing instructions or marketing advice, is provided in good faith but without warranty and without accepting any responsibility/liability. Each customer must test and be responsible for its own specific use, further processing, labeling, marketing, etc. All sales are exclusively subject to our standard terms of sale posted at www.milliken.com/terms (all additional/different terms are rejected) unless explicitly agreed otherwise in a signed writing.

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