SAFETY DATA SHEET

PREMIER BUILDING SOLUTIONS, INC.

Version: 1.2
Revision Date: 12/5/2016

XTRABOND 250 100% RTV SILICONE SEALANT

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product Brand Name: XtraBond 250
Other Names/Synonyms: None
Recommended Use: Sealant - Other
Uses advised against: No information available

Company Contact Information

Premier Building Solutions, Inc.
480 Nova Drive
Massillon, OH. 44646
Telephone: 330-244-2907

Emergency Telephone Number

CHEMTREC: 1-800-424-9300 (24 hours) or 1-703-527-3887

2. HAZARDS IDENTIFICATION

GHS Classification

Classification: This chemical is not considered hazardous substance or mixture by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

GHX label elements: Not a hazardous substance or mixture

Precautionary Statements - Prevention
Use only outdoors or in a well-ventilated area

Other Hazards
None known

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance: Mixture
Chemical Nature: Silicone elastomer

CAS Number	*Wt. %	Component Name
64742-46-7	5 – 10	Distillates (petroleum), hydrotreated middle
7631-86-9	5 – 10	Silicone Dioxide
1333-86-4	1 - 5	Carbon Black (if needed)
13463-67-7	1 - 5	Titanium Dioxide (if needed)

7429-90-5	1 – 5	Aluminum (if needed)

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

General Advice: **Show this safety data sheet to the doctor in attendance.**
Immediate medical attention is required.

Eye Contact
Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.

Skin Contact
Wash with water and soap as a precaution. Get medical attention if symptoms occur.

Inhalation
If inhaled, remove to fresh air. Get medical attention if symptoms occur.

Ingestion
If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.

Self-protection of the first aider
No special precautions are necessary for first aid responders

Most important symptoms and effects, both acute and delayed
None known

Notes to Physician
Treat symptomatically

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media
Water spray, Alcohol-resistant foam, Carbon dioxide (CO2), Dry chemical

Unsuitable extinguishing media
None known

Specific Hazards During Fire Fighting
Exposure to combustion products may be a hazard to health

Hazardous Combustion Products
Carbon oxides, Silicon oxides, Formaldehyde, Metal Oxides

Specific Extinguishing Methods
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

Special Protective Equipment for firefighters
Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Follow safe handling advice and personal protective equipment recommendations.

Environmental Precautions
Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up
Soak up with inert absorbent material. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures
See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total Ventilation
Use only with adequate ventilation

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice. Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage, including any incompatibilities

Storage
Keep in properly labeled containers. Store in accordance with the particular national regulations.

Materials to avoid
Do not store with the following product types: Strong oxidizing agents

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

Ingredients with workplace control parameters

Ingredients	CAS #	Value type (form of exposure	Control parameters / Permissible concentration	Basis
Silicon Dioxide	7631-86-9	TWA (dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (dust)	80 mg/m3 / %SiO2 (Silica)	OSHA Z-3
		TWA	6 mg/m3	NIOSH REL
Distillates (petroleum), hydrotreated middle	64742-46-7	TWA (mist)	5 mg/m3	OSHA Z-1
		TWA (mist)	5 mg/m3	NIOSH REL
		ST (mist)	10 mg/m3	NIOSH REL

Ingredients	CAS #	Value type (form of exposure	Control parameters / Permissible concentration	Basis
Titanium dioxide (if needed)	13463-67-7	TWA (dust)	15 mg/m3	OSHA Z-1
		TWA	10 mg/m3	ACGIH

Carbon Black (if needed)	1333-86-4	TWA	3.5 mg/m3	NIOSH REL
		TWA	3.5 mg/m3	OSHA Z-1
		TWA (Inhalation fraction)	3 mg/m3	ACGIH
Aluminum (if needed)	7429-90-5	TWA (Respirable)	5 mg/m³	NIOSH REL
		TWA (total)	10 mg/m³	NIOSH REL
		TWA (total dust)	15 mg/m³ (Aluminum)	OSHA Z-1
		TWA (Respirable fraction)	5 mg/m³ (Aluminum)	OSHA Z-1
		TWA (welding fumes)	5 mg/m³ (Aluminum)	NIOSH REL
		TWA (pyro powders)	5 mg/m³ (Aluminum)	NIOSH REL
		TWA (Respirable fraction)	1 mg/m³ (Aluminum)	ACGIH

These substances are inextricably bound in the product and therefore do not contribute to a dust inhalation hazard
Silicon dioxide

Engineering measures
Processing may form hazardous compounds (see section 10). Ensure adequate ventilation, especially in confined areas. Minimize workplace exposure concentrations. Dust formation may be relevant in the processing of this product. In addition to substance-specific OELs, general limitations of concentrations of particulates in the air at workplaces have to be considered in workplace risk assessment. Relevant limits include: OSHA PEL for Particulates Not Otherwise Regulated of 15 mg/m3 - total dust, 5 mg/m3 - Respirable fraction; and ACGIH TWA for Particles (insoluble or poorly soluble) Not Otherwise Specified of 3 mg/m3 - Respirable particles, 10 mg/m3 - inhalable particles.

Skin and Body Protection
Skin should be washed after contact

Individual protection measures, such as personal protective equipment

Eye Protection
Wear the following personal protective equipment: Safety glasses

Hand Protection

Wash hands before breaks and at the end of the workday.

Respiratory Protection
General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hygiene Measures
Ensure that eye flushing systems and safety showers are located close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use. These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions.

9. PHYSICAL & CHEMICAL PROPERTIES

Physical Form: Paste, Liquid
Color: Varies
Odor: Acetic acid
Odor Threshold: No information available

Property	Values	Remarks Method
pH	UNKNOWN	None known
Melting / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	>100°C	Closed cup
Evaporation Rate	No data available	None known
Flammability (solid, gas)	Not classified as flammable hazard	None known
Self-Ignition	The substance or mixture is not classified as pyrophoric or self-heating	
Upper explosion limits	No data available	None known
Lower explosion limits	No data available	None known
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	1.007	None known
Water Solubility	No data available	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known

Dynamic viscosity	No data available	None known
Explosive properties	Not explosive	None known
Molecular weight	No data available	None known
Oxidizing Properties	The substance or mixture is not classified as oxidizing	

VOC = 30 g/L

10. STABILITY AND REACTITY

Reactivity
Not classified as a reactivity hazard

Chemical stability
Stable under normal conditions.

Possibility of Hazardous Reactions
Use at elevated temperatures may form highly hazardous compounds. Can react with strong oxidizing agents. Acetic acid is formed upon contact with water or humid air. When heated to temperatures above 150 °C (300 °F) in the presence of air, trace quantities of formaldehyde may be released. Adequate ventilation is required. See OSHA formaldehyde standard, 29 CFR 1910.1048 Hazardous decomposition products will be formed at elevated temperatures.

Conditions to avoid
None known

Incompatible materials
Oxidizing agents

Hazardous Decomposition Products
Thermal decomposition: Formaldehyde

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Acute Toxicity
Not classified based on available information

Component Information

Chemical Name	Acute Oral Toxicity	Acute Dermal Toxicity	Acute Inhalation Toxicity
Silicon Dioxide	LD50 (Rat): > 3,300 mg/kg Assessment: The substance or mixture has no acute oral toxicity Remarks: Information taken from reference works and the literature.	LD50 (Rabbit): > 5,000 mg/kg Assessment: The substance or mixture has no acute dermal toxicity Remarks: Information taken from reference works and the literature.	LC50 (Rat): > 2.08 mg/l Exposure time: 4 h Test atmosphere: dust/mist Assessment: The substance or mixture has no acute inhalation toxicity Remarks: Information taken from reference works and the literature
Distillates (petroleum), hydrotreated	LD50 (Rat): > 5,000 mg/kg	LD50 (Rabbit): > 3,160 mg/kg Assessment: The substance or mixture has no acute dermal toxicity	LC50 (Rat): > 5,266 mg/m³ Exposure time: 4 h Test atmosphere: dust/mist
Titanium Dioxide (if needed)	LD50 (Rat): > 5,000 mg/kg	-	LC50 (Rat): > 6.82 mg/l Exposure time: 4 h Test atmosphere: dust/mist Assessment: The substance or mixture has no acute inhalation toxicity
Aluminum (if needed)	LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 401 Remarks: Based on data from similar materials	-	LC50 (Rat): > 0.888 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhalation toxicity
Carbon Black (if needed)	LD50 (Rat): > 5,000 mg/kg	-	LC50 (Rat): > 0.0046 mg/l Exposure time: 4 h Test atmosphere: dust/mist

Skin corrosion/irritation
Not classified based on available information

Ingredients:

Silicon dioxide:
Result: No skin irritation
Remarks: Information taken from reference works and the literature.

Distillates (petroleum), hydrotreated middle:
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

Titanium dioxide:
Species: Rabbit
Result: No skin irritation

Aluminum:
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation
Remarks: Based on data from similar materials

Carbon black:
Species: Rabbit
Result: No skin irritation

Serious eye damage/eye irritation
Not classified based on available information.

Ingredients:

Silicon dioxide:
Result: No eye irritation
Remarks: Information taken from reference works and the literature.

Distillates (petroleum), hydrotreated middle:
Species: Rabbit
Result: No eye irritation Method: OECD Test Guideline 405

Titanium dioxide:
Species: Rabbit
Result: No eye irritation

Aluminum:
Species: Rabbit
Result: No eye irritation
Remarks: Based on data from similar materials

Carbon black:

Species: Rabbit
Result: No eye irritation

Respiratory or skin sensitization
Skin sensitization: Not classified based on available information.
Respiratory sensitization: Not classified based on available information.

Ingredients:

Silicon dioxide:
Assessment: Does not cause skin sensitization.
Test Type: Skin: test type not specified
Species: Guinea pig
Result: negative
Remarks: Information taken from reference works and the literature.

Distillates (petroleum), hydrotreated middle:
Test Type: Maximization Test
Routes of exposure: Skin contact
Species: Guinea pig
Result: negative
Remarks: Based on data from similar materials

Titanium dioxide:
Test Type: Local lymph node assay (LLNA)
Routes of exposure: Skin contact
Species: Mouse
Result: negative

Aluminum:
Routes of exposure: Skin contact
Species: Guinea pig
Result: negative
Remarks: Based on data from similar materials

Carbon black:
Test Type: Buehler Test
Routes of exposure: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative

Germ cell mutagenicity
Not classified based on available information.

Ingredients:

Silicon dioxide:
Genotoxicity in vitro:
Result: negative
Remarks: Information taken from reference works and the literature.
Genotoxicity in vivo:
Application Route: Ingestion
Result: negative
Remarks: Information taken from reference works and the literature.

Germ cell mutagenicity:
Assessment: Animal testing did not show any mutagenic effects.

Distillates (petroleum), hydrotreated middle:
Genotoxicity in vitro:
Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo:
Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
Species: Rat
Application Route: Intraperitoneal injection
Result: negative

Titanium dioxide:
Genotoxicity in vitro:
Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo:
Test Type: In vivo micronucleus test
Species: Mouse
Result: negative

Aluminum:
Genotoxicity in vitro:
Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Genotoxicity in vivo:
Test Type: In vivo micronucleus test
Species: Rat
Application Route: Ingestion

Method: OECD Test Guideline 474
Result: negative
Remarks: Based on data from similar materials

Carbon black:
Genotoxicity in vitro:
Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Carcinogenicity
Not classified based on available information.

Ingredients:

Titanium dioxide:
Species: Rat
Application Route: inhalation (dust/mist/fume)
Exposure time: 24 Months
Method: OECD Test Guideline 453
Result: positive
Remarks: The mechanism or mode of action may not be relevant in humans. The substance is inextricably bound in the product and therefore does not contribute to a dust inhalation hazard.

Carcinogenicity - Assessment:
Limited evidence of carcinogenicity in inhalation studies with animals.

Aluminum:
Species: Rat
Application Route: inhalation (dust/mist/fume)
Exposure time: 86 weeks
Result: negative

IARC: Group 2B: Possibly carcinogenic to humans
(Titanium dioxide CAS# 13463-67-7)
(Carbon Black CAS# 1333-86-4)

OSHA: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity
Not classified based on available information.

Ingredients:

Distillates (petroleum), hydrotreated middle:
Effects on fertility:
Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative
Remarks: Based on data from similar materials

Effects on fetal development:
Test Type: Embryo-fetal development
Species: Rat
Application Route:
Ingestion Method: OECD Test Guideline 414
Result: negative

Aluminum:
Effects on fertility:
Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative
Remarks: Based on data from similar materials

Effects on fetal development:
Test Type: Embryo-fetal development
Species: Mouse
Application Route: Ingestion
Result: negative

STOT-single exposure
Not classified based on available information.

STOT-repeated exposure
Not classified based on available information.

Ingredients:

Carbon black:
Routes of exposure: inhalation (dust/mist/fume)
Assessment: No significant health effects observed in animals at concentrations of 0.2 mg/l/6h/d or less.

Repeated dose toxicity

Ingredients:

Distillates (petroleum), hydrotreated middle:
Species: Rat
NOAEL: >= 5,000 mg/kg
Application Route: Ingestion
Exposure time: 13 Weeks
Remarks: Based on data from similar materials

Titanium dioxide:
Species: Rat
NOAEL: 24,000 mg/kg
Application Route: Ingestion
Exposure time: 28 Days
Species: Rat
NOAEL: 10 mg/m³
Application Route: inhalation (dust/mist/fume)
Exposure time: 2 y
Remarks: The substance is inextricably bound in the product and therefore does not contribute to a dust inhalation hazard.

Carbon black:
Species: Rat
NOAEL: 1 mg/m³ LOAEL: 7 mg/m³
Application Route: Inhalation
Test atmosphere: dust/mist
Exposure time: 90 Days
Remarks: The substance is inextricably bound in the product and therefore does not contribute to a dust inhalation hazard.

Aspiration toxicity
Not classified based on available information.

Ingredients:

Distillates (petroleum), hydrotreated middle:
The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

12. ECOLOGICAL CONSIDERATIONS

Ecotoxicity

Ingredients:

Distillates (petroleum), hydrotreated middle:
Toxicity to fish: LL50 (Scophthalmus maximus (turbot)): > 1,028 mg/l
Exposure time: 96 h
Test substance: Water Accommodated Fraction

Toxicity to daphnia and other aquatic invertebrates: LL50 (Acartia tonsa): > 3,193 mg/l
Exposure time: 48 h
Test substance: Water Accommodated Fraction

Toxicity to algae: EL50 (Skeletonema costatum (marine diatom)): > 10,000 mg/l Exposure time: 72 h
Test substance: Water Accommodated Fraction

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOELR (Ceriodaphnia dubia (water flea)): > 100 mg/l
Exposure time: 8 d
Test substance: Water Accommodated Fraction

Toxicity to microorganisms: EC50: > 100 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

Titanium dioxide:
Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h

Toxicity to algae: EC50 (Skeletonema costatum (marine diatom)): > 10,000 mg/l
Exposure time: 72 h

Toxicity to bacteria: EC50: > 1,000 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

Aluminum:

Toxicity to fish: NOEC (Salmo trutta (brown trout)): > 80 µg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates: NOEC (Daphnia magna (Water flea)): > 0.135 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Ecotoxicology Assessment
Chronic aquatic toxicity: No toxicity at the limit of solubility.

Carbon black:
Toxicity to fish: LC0 (Danio rerio (zebra fish)): 1,000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): > 5,600 mg/l
Exposure time: 24 h
Method: OECD Test Guideline 202

Toxicity to algae: NOEC (Desmodesmus subspicatus (green algae)): 10,000 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Persistence and degradability

Ingredients:

Distillates (petroleum), hydrotreated middle:
Biodegradability Result: Readily biodegradable.
Biodegradation: 74 %
Exposure time: 28 d
Method: OECD Test Guideline 306

Bioaccumulative potential
No data available

Mobility in soil
No data available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Resource Conservation and Recovery Act (RCRA):
This product has been evaluated for RCRA characteristics and does not meet the criteria of hazardous waste if discarded in its purchased form.

Waste from residues:
Dispose of in accordance with local regulations.

Contaminated packaging:
Empty containers should be taken to an approved waste handling site for recycling or disposal.
If not otherwise specified: Dispose of as unused product.

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.

Domestic regulation 49 CFR
Not regulated as a dangerous good

15. REGULATORY INFORMATION

International Inventories

TSCA All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

DSL All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempt from listing on the Canadian Domestic Substances List (DSL).

REACH All ingredients are currently pre/registered or exempt under REACH. Please refer to section 1 for recommended uses.

AICS All ingredients listed or exempt

IECSC All ingredients listed or exempt

PICCS All ingredients listed or exempt

US Federal Regulations

SARA 313
The following components are subject to reporting levels established by SARA Title III, Section 313:
(Aluminum CAS# 7429-90-5 If needed)

SARA 311/312 Hazard Categories
No SARA hazards

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity
This material does not contain any components with a section 302 EHS TPQ

CERCLA Reportable Quantity

Ingredients	CAS #	Component RQ (lbs)	Calculated product RQ (lbs)
Acetic Acid	64-19-7	5000	*
Acetic anhydride	108-24-7	5000	*

US State Regulations

California Proposition 65
This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Dimethyl siloxane, hydroxyl terminated (70131-67-8)			X		

Silicon dioxide (7631-86-9)			X		
Distillates (petroleum), hydrotreated middle (64742-46-7)			X		
Titanium dioxide (if needed 13463-67-7)			X		
Iron oxide (if needed 1332-37-2)			X		
Aluminum (if needed 7429-90-5)			X		
Carbon black (if needed 1333-86-4)			X		
Acetic acid (64-19-7)			X		
Acetic anhydride (108-24-7)			X		

California List of Hazardous Substances
Silicon dioxide 7631-86-9
Distillates (petroleum), hydrotreated middle 64742-46-7
Aluminum (if needed) 7429-90-5
Carbon black (if needed) 1333-86-4

California Permissible Exposure Limits for Chemical Contaminants
Silicon dioxide 7631-86-9
Distillates (petroleum), hydrotreated middle 64742-46-7
Aluminum (if needed) 7429-90-5
Carbon black (if needed) 1333-86-4
Titanium dioxide (if needed) 13463-67-7

16. OTHER INFORMATION

NFPA

Health Hazards:	0
Flammability:	1
Instability:	0
Physical/Chemical Haz.	-

HMIS

Health Hazards:	0
Flammability:	1
Physical Hazard:	0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

ACGIH:	USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL:	USA. NIOSH Recommended Exposure Limits
OSHA Z-1:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA Z-3:	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
ACGIH / TWA:	8-hour, time-weighted average
NIOSH REL / TWA:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA Z-1 / TWA:	8-hour time weighted average
OSHA Z-3 / TWA:	8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

http://www.xtrabond.com