SAFETY DATA SHEET

1. Identification

Material name: OB TREMLINE OUTSIDE CORNER KIT 6 BONEWTE
Material: 040160BNW510

Recommended use and restriction on use

Recommended use: Article
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information
Tremco U.S. Roofing
3735 Green Road
Beachwood OH 44122
US

Contact person:	EH&S Department
Telephone:	216-292-5000
Emergency telephone number:	1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Acute toxicity (Inhalation - dust and mist)	Category 4

Unknown toxicity - Health

Acute toxicity, oral	0 %
Acute toxicity, dermal	98.38 %
Acute toxicity, inhalation, vapor	100 %
Acute toxicity, inhalation, dust or mist	4.54 %

Environmental Hazards

Acute hazards to the aquatic environment	Category 1

Unknown toxicity - Environment

Acute hazards to the aquatic environment	1.93 %
Chronic hazards to the aquatic environment	100 %

Label Elements

Hazard Symbol:

Signal Word: Warning

Hazard Statement: Harmful if inhaled.
Very toxic to aquatic life.

Precautionary Statement:

Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Avoid release to the environment.

Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. Collect spillage.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in GHS classification: None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Aluminum	7429-90-5	60 - 100%
Zinc	7440-66-6	1 - 5%
Silicon	7440-21-3	1 - 5%
Copper	7440-50-8	0.5 - 1.5%
Manganese	7439-96-5	0.5 - 1.5%
Chromium	7440-47-3	0.1 - 1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Ingestion: Call a POISON CENTER/doctor/.../if you feel unwell. Rinse mouth.

Inhalation: Move to fresh air.

Skin Contact: Wash skin thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.

Eye contact: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

Most important symptoms/effects, acute and delayed

Symptoms: May cause skin and eye irritation.

Indication of immediate medical attention and special treatment needed

Treatment: Get medical attention if symptoms occur.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: No data available.

Methods and material for containment and cleaning up: Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling: Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Use mechanical ventilation in case of handling which causes formation of dust.

Conditions for safe storage, including any incompatibilities: Store away from incompatible materials. Store in original tightly closed container.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values	Source
Aluminum - Respirable fraction.	TWA	1 mg/m3	US. ACGIH Threshold Limit Values (2011)
Aluminum - Respirable dust. - as Al	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Aluminum - Total dust. - as Al	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Silicon - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Silicon - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Copper - Dust and mist. - as Cu	TWA	1 mg/m3	US. ACGIH Threshold Limit Values (03 2014)
Copper - Fume. - as Cu	TWA	0.2 mg/m3	US. ACGIH Threshold Limit Values (03 2014)
	PEL	0.1 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Copper - Dust and mist. - as Cu	PEL	1 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Manganese - Inhalable fraction. - as Mn	TWA	0.1 mg/m3	US. ACGIH Threshold Limit Values (03 2014)
Manganese - Respirable fraction. - as Mn	TWA	0.02 mg/m3	US. ACGIH Threshold Limit Values (03 2014)
Manganese - Fume. - as Mn	Ceiling	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Chromium - as Cr	TWA	0.5 mg/m3	US. ACGIH Threshold Limit Values (2011)
	PEL	1 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

Chemical name	type	Exposure Limit Values	Source
Aluminum - Respirable.	TWA	1 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Aluminum - Respirable fraction.	TWAEV	1 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Aluminum	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Aluminum - Welding fume. - as Al	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Aluminum - as Al	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Silicon - Total dust.	TWAEV	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Silicon - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Manganese - as Mn	TWA	0.2 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Manganese - as Mn	TWAEV	0.2 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Manganese - Fume. - as Mn	TWA	1 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Manganese - Dust. - as Mn	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Manganese - Fume. - as Mn	STEL	3 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Chromium	TWA	0.5 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Chromium - as Cr	TWAEV	0.5 mg/m3	Canada. Ontario OELs. (Control of

			Exposure to Biological or Chemical Agents) (11 2010)
Chromium	TWA	0.5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)

Appropriate Engineering Controls Mechanical ventilation or local exhaust ventilation may be required. Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of dust.

Individual protection measures, such as personal protective equipment

General information: Use personal protective equipment as required.

Eye/face protection: Wear goggles/face shield.

Skin Protection

Hand Protection: Use suitable protective gloves if risk of skin contact.

Other: No data available.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures: Observe good industrial hygiene practices.

9. Physical and chemical properties

Appearance

Physical state: solid
Form: No data available.
Color: Various
Odor: Odorless
Odor threshold: No data available.
pH: No data available.
Melting point/freezing point: No data available.
Initial boiling point and boiling range: No data available.
Flash Point: No data available.
Evaporation rate: No data available.
Flammability (solid, gas): No
Upper/lower limit on flammability or explosive limits
Flammability limit - upper (%): No data available.
Flammability limit - lower (%): No data available.
Explosive limit - upper (%): No data available.
Explosive limit - lower (%): No data available.
Vapor pressure: No data available.
Vapor density: No data available.
Relative density: 2.73
Solubility(ies)
Solubility in water: Insoluble in water

Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of Hazardous Reactions:	No data available.
Conditions to Avoid:	Avoid heat or contamination.
Incompatible Materials:	No data available.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information

Information on likely routes of exposure

Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.
Inhalation:	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	Causes mild skin irritation.
Eye contact:	Eye contact is possible and should be avoided.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral
Product: ATEmix: 116,959.06 mg/kg

Dermal
Product: No data available.

Inhalation
Product: ATEmix: 2.44 mg/l

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation

Product: No data available.

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

Aluminum	in vivo (Rabbit, 24 hrs): Not irritating
Zinc	in vivo (Rabbit, 24 - 72 hrs): Slightly irritating
Silicon	in vivo (Rabbit, 1 hrs): Not irritating
Copper	Irritating
Manganese	in vivo (Rabbit, 24 - 72 hrs): Not irritating
Chromium	in vivo (Rabbit, 1 hrs): Not irritating

Respiratory or Skin Sensitization

Product: No data available.

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Aluminum	LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 0.31 mg/l Mortality
Zinc	LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 0.41 mg/l Mortality
Copper	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 0.114 mg/l Mortality
Manganese	LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 28 d): > 0.17 - < 15.61 mg/l Mortality
Chromium	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 52 mg/l Mortality

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Aluminum	LC 50 (Water flea (Daphnia magna), 24 h): 3.5 mg/l Mortality LC 50 (Rotifer (Brachionus calyciflorus), 24 h): > 3 mg/l Mortality LC 50 (Ridged-beak peaclam (Pisidium compressum), 96 h): > 0.4 mg/l Mortality LC 50 (Scud (Hyalella azteca), 96 h): > 1 mg/l Mortality LC 50 (Snail (Amnicola limosa), 96 h): > 1 mg/l Mortality
Zinc	LC 50 (Rotifer (Brachionus calyciflorus), 24 h): 1.1 - 1.4 mg/l Mortality LC 50 (Rotifer (Brachionus plicatilis), 24 h): > 4.8 mg/l Mortality
Copper	LC 50 (Water flea (Daphnia magna), 24 h): 0.0094 mg/l Mortality LC 50 (Water flea (Ceriodaphnia dubia), 24 h): +/- +/- 0.05 mg/l Mortality LC 50 (Water flea (Ceriodaphnia dubia), 24 h): +/- +/- 0.125 mg/l Mortality LC 50 (Water flea (Ceriodaphnia dubia), 24 h): +/- +/- 0.1 mg/l Mortality LC 50 (Water flea (Ceriodaphnia dubia), 24 h): +/- +/- 0.075 mg/l Mortality
Manganese	EC 50 (Water flea (Daphnia magna), 48 h): 40 mg/l Intoxication
Chromium	LC 50 (Spire snail (Amnicola), 24 h): 10.2 mg/l Mortality

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Aluminum	LOAEL (Pimephales promelas, 28 d): 11.9 mg/l experimental result EC 50 (Pimephales promelas, 7 d): 0.695 mg/l experimental result LOAEL (Salvelinus fontinalis, 30 d): 0.169 mg/l experimental result EC 50 (Pimephales promelas, 7 d): 3.999 mg/l experimental result EC 10 (Pimephales promelas, 7 d): 0.726 mg/l experimental result
Zinc	NOAEL (Oncorhynchus mykiss, 30 d): 974 µg/l interpreted
Copper	NOAEL (Oncorhynchus mykiss, 60 d): 2.2 µg/l experimental result

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s):

Copper	LC 50 (Green algae (Scenedesmus dimorphus), 1 d): 0.0769 mg/l Mortality LC 50 (Green algae (Scenedesmus dimorphus), 3 d): 0.0623 mg/l Mortality LC 50 (Green algae (Enteromorpha), 5 d): 0.0099 mg/l Mortality LC 50 (Green algae (Scenedesmus dimorphus), 6 d): 0.0617 mg/l Mortality LC 50 (Green algae (Scenedesmus dimorphus), 9 d): 0.0627 mg/l Mortality

Persistence and Degradability

Biodegradation

Product: No data available.

BOD/COD Ratio

Product: No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

Product: No data available.

Specified substance(s):

Aluminum	Brook trout (Salvelinus fontinalis), Bioconcentration Factor (BCF): 36 (Flow through)
Zinc	Threespine stickleback (Gasterosteus aculeatus), Bioconcentration Factor (BCF): < 1 (Static)
Copper	Blue-green algae (Anacystis nidulans), Bioconcentration Factor (BCF): 2.12 (Static)
Manganese	Eelgrass (Zostera marina), Bioconcentration Factor (BCF): 1,500,000 (Static) Bioconcentration factor calculated using dry weight tissue conc
Chromium	Rainbow trout,donaldson trout (Oncorhynchus mykiss), Bioconcentration Factor (BCF): 1.34 (Static)

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in Soil: No data available.

Other Adverse Effects: Very toxic to aquatic organisms.

13. Disposal considerations

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG:

Not Regulated

CFR / DOT:

Not Regulated

IMDG:

Not Regulated

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity	Reportable quantity
Zinc	1000 lbs.
Copper	5000 lbs.
Chromium	5000 lbs.
Nickel	100 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate (Acute) Health Hazards

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

Chemical Identity	Reportable quantity
Zinc	1000 lbs.
Copper	5000 lbs.
Chromium	5000 lbs.
Nickel	100 lbs.

SARA 311/312 Hazardous Chemical

Chemical Identity	Threshold Planning Quantity
Aluminum	500 lbs
Zinc	500 lbs
Silicon	500 lbs
Copper	500 lbs
Manganese	500 lbs
Chromium	500 lbs

SARA 313 (TRI Reporting)

Chemical Identity
Aluminum
Zinc

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity
Aluminum
Zinc

US. Massachusetts RTK - Substance List

Chemical Identity
Aluminum
Zinc
Chromium
Nickel

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
Aluminum
Zinc
Chromium

US. Rhode Island RTK

Chemical Identity
Aluminum
Zinc

Other Regulations:

Regulatory VOC (less water and exempt solvent):	0 g/l
VOC Method 310:	Not available.

Inventory Status:

Australia AICS:	All components in this product are listed on or exempt from the Inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	All components in this product are listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	All components in this product are listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	All components in this product are listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	All components in this product are listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	All components in this product are listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.

16.Other information, including date of preparation or last revision

Revision Date:	08/15/2015
Version #:	1.0
Further Information:	No data available.
Disclaimer:	For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.