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SAFETY DATA SHEET

1. Identification

Material name: TREMLINE RIGHT HAND ENDCAP 8" BONE WHITE

Material: 040294BNW501

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 DepartmentTelephone: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 Category 4 mist)

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 Category 1 environment

Unknown toxicity - Environment

Acute hazards to the aquatic environment

Chronic hazards to the aquatic environment

1.93 %

100 %

Label Elements

Hazard Symbol:



Signal Word: Warning



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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.



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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



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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)





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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



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			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:

pH:

No data available.

Flammability (solid, gas):

No
Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%):

Flammability limit - lower (%):

Explosive limit - upper (%):

Explosive limit - lower (%):

No data available.

No data available.

No data available.

Vapor pressure:

No data available.

No data available.

No data available.

Relative density: 2.73

Solubility(ies)

Solubility in water: Insoluble in water



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Solubility (other):

Partition coefficient (n-octanol/water):

Auto-ignition temperature:

No data available.

No data available.

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



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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.



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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.



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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.



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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 IdentityReportable quantityZinc1000 lbs.Copper5000 lbs.Chromium5000 lbs.Nickel100 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate (Acute) Health Hazards



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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

<u>Chemical Identity</u>	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



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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.



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

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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.