

Safety Data Sheet

Weather Barrier is an eco-friendly nanomaterial designed to speed up the curing of chip seal bitumen emulsions.

Section 1: Identification of the substance and supplier		
Product Name	Weather Barrier	
Other Name		
Recommended Use	Product is predominantly used in road making	
Company Details	Road Science	
Address	345 Matakokiri Drive, Omanawa, Tauranaga, New Zealand	
Telephone Number	0800 180 200	
Specified Jurisdiction	European Union	
Relevant Law	Regulation (EU) 2015/830	
Emergency Telephone Number	07 575 1150 24hr / 7 days or National Poisons Centre 0800 POISON (0800 764 766)	

Section 2: Hazards identification

Hazard Statement Causes mild skin irritation

Causes mild skin drying May cause eye irritation May cause respiratory tract irritation



Section 3: Composition/information on ingredients					
Chemical Name	Index No.	CAS No.	EC No.	Conc. (%w/w)	Classification
Colloidal silicon dioxide solution		7631-86-9 7732-18-5		0 - 30%	





Section 4: First aid measures

General Information:

Consult Physician, show this SDS to the physician.

First Aid Instructions:

Inhalation: Move person to fresh air. If not breathing, give artificial respiration.

Skin Contact: Wash affected area with soap and water. Remove

contaminated clothing.

Eye Contact: Flush eyes with water as precaution. Consult physician if irritation develops.

Ingestion: Never give anything by mouth to an unconscious person. Do not induce vomiting, consult a physician.

Most likely symptoms of exposure: Mild irritation of the affected area. When necessary, treat symptomatically.

Section 5: Fire fighting measures

Clear fire area of all non-emergency personnel.

Extinguishing Media: Use extinguishing media appropriate for local circumstances and surrounding environment. The product is noncombustible.

Specific hazards from chemical exposed to fire: No hazards to be

specifically mentioned.

Hazardous Decompisition: No hazardous combustion products are known

Protective Equipment & Precautions for Fire Fighters: Use standard procedure for chemical fires.

Section 6: Accidental release measures

Personal Precautions and Protective Equipment: Wear the appropriate protective gear for the specific situation. For further information, see section 8: Personal Protection Information

Emergency Procedures: In case of release: Stop release if able to do so safely. Evacuate the surrounding area if deemed appropriate. Contain the release if possible and in a safe manner. Spills may be reportable to national, state, or local agencies. Obey all relevant local, state, and federal laws and regulations. Do not contaminate any streams, lakes, ponds, groundwater or soil.

Containment Methods and Materials: Contain spills by all methods appropriate, such as damming, capping drains.

Clean up Procedures: Clean-up methods should be appropriate for a water based material. Vacuuming, pumping, and specialised equipment can be used. Absorbing the product into inert material can be used. Contain the material in appropriate containers. Obey all relevant local, state, and federal laws and regulations.

Section 7: Handling and storage

General Precautions: Provide adequate ventilation, Local ventilation is indicated with airborne mists. Handle in accordance with good industrial hygiene and safety practices. Eating, drinking and smoking should be prohibited in areas where this is used Chemicals that are incompatible with a water based product

should be kept away. In cold weather, this product may freeze, irreversibly damaging the product. Mix thoroughly before use to assure homogeneity. Do not release this material into the environment.

Section 8: Exposure control/personal protection					
Substance & CAS #	OSHA PEL		Cal OSHA 8-hour TWA as of 7/7/16	NIOSH REL up to 10-hour TWA as of 7/7/16	ACGIH 2016 2016 TLV 8-hour TWA
Amorphous Silica	mppcf	mg/m³	mg/m³	mg/m³	mg/m³
Amorphous Silica CAS# 7631-86-9	20	80 mg/m³	6 (total) 3 (respirable)	6	10 (inhalable) 3 (respirable)

Acronyms:

ACGIH American Conference of Governmental Industrial Hygienists

NIOSH National Institute for Occupational Safety and Health

OSHA Occupational Safety and Health Administration

TWA Time Weighted Average

Cal OSHA California Occupational Safety and Health Administration

MPPCF million particles per cubic foot

mg/m³ milligrams per cubic meter

CAS# Chemical Abstracts Service Number





Engineering Controls:

Use General Industrial Hygiene Practice.

Use Local Exhaust Ventilation to prevent build-up of vapours and mists

Exposure Controls - Personal Protection:

Eye and Face: Approved Safety glasses and chemical splash goggles

Skin Protection: Handle with impervious gloves, nitrile rubber is recommended

Respiratory Protection: Respiratory protection is not normally required, in cases where the material is converted to mists, vapours or dusts, approved respiratory protection should be used. Use respirators and components that are approved under appropriate governmental standards.

Body Protection: Impervious clothing.

Personal Hygiene: Wash hands and any exposed area's after handling this product, before eating, drinking, using the toilet, or other activities.

Section 9: Physical and chemical properties		
Physical appearance	Slightly opaque, translucent liquid	
Physical form	Pourable watery like liquid	
Upper/lower flammability limits	N/A	
Explosive limits	N/A	
Odour	Light characteristic smell	
Vapour pressure	Same as for water	
Odour threshold	No data available	
Vapour density	Same as for water	
рН	2.0 - 3.0	
Relative density	1.20 g/ml (25°C)	
Melting/freezing point	0°C, 32°F	
Solubility	Water miscible, no data for other solvents	
Boiling point	100°C, 212°F - same as water	
Flash point	Will not flash	
Evaporation	No data available	
Flammability	No data available	
Partition coefficient: n-octanol/water	No data available	
Auto-ignition temperature	N/A	
Decomposition temperature	material does not decompose	
Viscosity	< 20 mPa.s	
Index of refraction	No data available	
Typical dry solids content	31%	
Oxidising properties	Not an oxidiser	





Section 10: Stability and Reactivity

Reactivity: Stable under normal conditions of use.

Chemical Stability: Stable under recommended storage conditions

Possibility of Hazardous Reactions: No dangerous reaction known under normal conditions of use

Conditions to Avoid: Temperatures outside recommended storage conditions. Do not mix with other materials unless advised by supplier. Avoid drying of the material as this could lead to creation of solids or build up of dusts.

Incompatible Materials: Cationic materials. Reactive metals such as aluminium and copper. Any materials that would react with the water or silica components.

Hazardous Decomposition Products: No hazardous decomposition products are known.

Thermal Decomposition: No hazardous thermal decomposition products are known.

Section 11: Toxicological information

Acute Toxicity: Not classified based on available information

Skin Corrosion/Irritation: Not classified based on available information

Serious Eye Damage/Irritation: Not classified based on available information

Respiratory or Skin Sensitisation: Not classified based on available information

Germ Cell Mutagenicity: Not classified based on available information

Carcinogenicity: No component of this product greater than or equal to 0.1% is identified as probable, possible or confirmed

carcinogen by OSHA, NTP, or IARC.

Reproductive Toxicity: Not classified based on available information

Specific target organ toxicity-single exposure: No data available. Specific target organ toxicity-repeated exposure: No data

Aspiration Hazard: No data available.

Additional Information: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12: Ecological information

Ecological Studies: No ecological studies are available. The product is not expected to be a serious ecological hazard.

Potential to Persist or Degrade: The product is not expected to bio-degrade. The product is expected to have low or zero BOD

Toxicity: No data available

Bioaccumulation: No data available

Mobility in Soil: No data available

PBT and vPvB Assessment: No data available
Other Adverse Effects: No data available

General Notes: Avoid transfer to the environment

Section 13: Disposal considerations

Product: Offer surplus and non-recyclable solutions to a licensed disposal company

Packaging: Empty remaining contents. Empty containers should be taken to an approved waste handling site for recycling or disposal

Product and Packaging: Consult federal, state, or local regulation to insure continued proper disposal.





Section 14: Transport information	
UN Number	Not classed as dangerous goods
UN Proper Shipping Name	Not classed as dangerous goods
Transport Hazard Class	Not classed as dangerous goods
Packing Group Number	Not classed as dangerous goods
DOT (US)	Not classed as dangerous goods
IMDG	Not classed as dangerous goods
IATA	Not classed as dangerous goods
Environmental Hazards	Not expected to be a serious environmental hazard
Marine Pollutant (IMDG)	Not a marine pollutant
Special Precautions	Avoid transfer to the environment

Section 15: Regulatory information	
Chemical Safety Assessment	A Chemical Safety Assessment has not been carried out
California Prop. 65	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm
New Jersey RTKC	Silicon Dioxide; CAS-No. 7631-86-9
Pennsylvania RTKC	Silicon Dioxide; CAS-No. 7631-86-9
Massachusetts RTKC	Silicon Dioxide; CAS-No. 7631-86-9
US TSCA	Yes - Listed
Canadian DSL	7631-86-9 is listed, 1344-09-8 is not listed
SARA 302	No ingredients in this product are subject to reporting for SARA title III, section 302
SARA 311/312	No ingredients in this product are subject to reporting for SARA title III, section 311/312
SARA 313	No information

Section 16: Other information

Reference:

OSHA, 29 CFR 1910.1200(g) and Appendix D. United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Third revised edition, United Nations, 2009. These references and other info can be found at http://www.osha.gov/dsg/hazcom/index.html

Need more information? At Road Science, we're committed to providing innovative solutions backed by engineering expertise. If you have any questions about this product, need technical guidance, or want to discuss how it fits your specific project needs, our team is here to help. Contact us today for expert advice and tailored support. Contact us via **0800 180 200** or visit our website at **roadscience.co.nz** to learn more.

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roadscience.co.nz 0800 180 200 Product: Weather Barrier Manufacturer: Road Science

Issued: **September 2025**