SAFETY DATA SHEET

According to
HSNO Hazardous Substances (Safety Data Sheets) Notice 2017

Section 1. Identification of the material and the supplier

Product:	**Cutback Bitumen 10 – 20pph**
Other/Trade Names:	Cutback Bitumen
Product Use:	Cutback Bitumen are used for the construction of bituminous road and pavement surfaces
Restriction of Use:	Refer to Section 15
NZ Supplier:	**Higgins Bitumen Bulk**
Address:	Napier Port, Breakwater Road, PO Box 421, Napier 4110, New Zealand
Telephone:	+64 6 834 0264
Email:	HBB@Higgins.co.nz
Emergency Telephone:	**111 (FIRE POLICE AMBULANCE)** **021 784 057 (National Bitumen Burns Centre)** **0800 764 766 (National Poison Centre)**
Date of SDS Preparation:	8 May 2026

Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020.

EPA Approval No: HSR001508

GHS Classification and Category	Hazard Code	Hazard Statement
Flammable Liquids Category 4	H227	Combustible liquid.
Hazardous to the aquatic environment chronic Category 3	H412	Harmful to aquatic life with long lasting effects.

Prevention Code	Prevention Statement
P103	Read label before use.
P210	Keep away from heat, sparks, open flames or hot surfaces. No smoking.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.

Response Code	Response Statement
P370 + P378	In case of fire: Use foam or dry chemicals for extinction.

Storage Code	Storage Statement
P403 + P235	Store in a well-ventilated place. Keep cool.

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Other Hazards	Statement
	Risk of burns when handled, stored and transported at elevated

	temperatures. There is a risk of water vapour pressure explosion if heated above 100ºC in the presence of water. Toxic, flammable and explosive levels of hydrocarbon vapour, hydrogen sulphide and other poisonous gases/vapors can accumulate in the head spaces of tanks and other confined spaces when handling hot bitumen. temperatures.

Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Bitumen	60 - 100	8052-42-4
Kerosene	10 - 20	8008-20-6

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes — If hot material contacts the eyes, immediately cool the affected area under cold water for at least 20 minutes. **DO NOT** attempt to remove the product from burnt areas. Refer to the CCNZ Bitumen Burns Card (see Section 16) and seek immediate medical assistance. Excessive exposure to fumes may cause eye irritations including redness, swelling, stinging and tearing in susceptible individuals. Remove affected person to a ventilated area.

If on Skin — If hot material contacts the skin, immediately cool the affected area under cold water for at least 20 minutes. **DO NOT** attempt to remove the product from burnt areas. Refer to the CCNZ Bitumen Burns Card (see Section 16) and seek immediate medical assistance. Material that contacts the skin at ambient temperatures **and does not** result in burns can be removed using vegetable based oils, or industrial hand cleaners. Do not use thinners or solvents. Repeated skin contact may cause skin irritations or dermatitis in susceptible individuals.

If Swallowed — Do not induce vomiting, wash out month thoroughly. If symptoms develop seek medical assistance.

If Inhaled — Remove affected person to a ventilated area. If symptoms persist, seek medical advice. If not breathing, apply artificial respiration and seek urgent medical advice.

Most important symptoms and effects, both acute and delayed

Symptoms: Various studies have concluded that there is no evidence of long-term health affects arising from the use of bitumen. Ingestion may cause pain, nausea or gastrointestinal irritations. Inhalation of fumes, mists or aerosols is likely to cause irritations to the nose or throat or coughing.

Section 5. Fire Fighting Measures

Hazard Type	This product contains kerosene and will generate flammable or explosive vapours in the head space of empty or full tanks, containers and vessels, especially when heated. Kerosene vapour is explosive in the 1 – 6% range. Limit oxygen, and maintain 8 metre distance to ignition sources. There is a significant risk of violent explosion if this product is heated above 100°C in the presence of water.
Hazards from products	Complete or incomplete combustion can produce oxides of carbon, sulfur and nitrogen, hydrogen sulphide and polyaromatic hydrocarbons.
Suitable	For large fires use foam, or water fog

Extinguishing media	For small fires use CO_2, dry powder, foam, sand or soil Do not use: Do not use high-pressure water hoses as these may spread the burning material.
Precautions for firefighters and special protective clothing	Fire fighters should wear full protective clothing and self-contained breathing apparatus.
HAZCHEM CODE	2Y (at temperatures above 100^0C)

Section 6. Accidental Release Measures

Wear suitable personal protective clothing as described in Section 8 to prevent skin or eye contact with the material. Whenever possible isolate the cause of the spill (i.e. close valves, empty ruptured vessels etc).

Small Spills:
Use absorbent material such as sand or soil to contain the spill. Allow the material to cure and solidify before removing using a shovel or other suitable equipment.

Large Spills:
If the spill occurs on land, use absorbent material such as sand or soil to contain the spill. Allow the material to cure and solidify before removing using earth moving or excavation equipment. Do not allow the material to enter storm water drains, sewage drains or the aquatic environment. If a spillage enters the aquatic environment, contain the spill before removing using a pump.

Environmental Impact:
This product is immiscible with water in all proportions and is harmful to aquatic organisms and should not be allowed to enter storm water, sewage drains or other bodies of water.

Waste Disposal:
This product can be mixed with soil or aggregates and disposed of as clean fill in Local Authority waste disposal facilities.

Section 7. Handling and Storage

Precautions for Handling:
- Use a well-ventilated area.
- Do not store or use in confined spaces.
- Material can be stored at temperatures between 130 – 160°C. Do not heat above 177°C.
- If storing for prolonged periods of time it is advisable not to heat product overnight and or unattended.
- Buildup of mists or vapors in the atmosphere must be prevented.
- Avoid breathing in spray mists or vapors.
- Do not use welding or other ignition sources and avoid sparks. Do not smoke.
- Wear personal protective clothing when handling (see Section 8).
- Avoid accidental release to the environment.

Precautions for Storage:
- Store away from heat, sources of ignition, oxidizing agents, foodstuffs, clothing and out of direct sunlight.
- Keep containers closed when not in use and securely sealed and protected against physical damage.
- Inspect regularly for damages or leaks.
- Do not allow water to contact hot bitumen due to danger of boil over.
- "Code of Practice RNZ9904: The Safe Handling of Bituminous Materials used in Roading" provides more information on the safe handling and storage of bituminous materials.
- Store away from incompatible materials listed in Section 10.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Asphalt Fumes:	0.5mg/m^3	8 Hour TWA	(NZ)
Oil mist, mineral:	5mg/m^3	8 Hour TWA	(NZ)
	10mg/m^3	15 min STEL	(NZ)
Kerosene:	100mg/m^3	8 Hour TWA	(NIOSH)
Carbon Dioxide:	5,000ppm (9000mg/m^3)	8 Hour TWA	(NZ)
	30,000ppm (54,000mg/m^3)	15 min STEL	(NZ)
Carbon Monoxide:	20ppm (200ppm Ceiling)	8 Hour TWA	(NZ)
	100ppm	15 min STEL	(NZ)
Hydrogen Sulphide:	5ppm (7mg/m^3)	8 Hour TWA	(NZ)
	10ppm (14mg/m^3)	15 min STEL	(NZ)

Workplace Exposure Standard – Short-term exposure limit (WES-STEL). The 15-minute time weighted average exposure standard. Applies to any 15-minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Exposures at concentrations between the WES-TWA and the WESSTEL should be less than 15 minutes, should occur no more than four times per day, and there should be at least 60 minutes between successive exposures in this range. Workplace Exposure Standards and Biological Exposure Indices. February 2025, Edition 15.

Notes:
This product can form mists or aerosols during use.

Engineering Controls
Provide adequate ventilation to ensure mists and aerosols remain at a minimum level. Where vapors or mist are generated, particularly in closed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required. Ensure that product cannot be heated above 160°C.

Personal Protection Equipment

Eyes	Full face shields are required when transferring hot bitumen between vessels using flexible hoses, or when filling mobile tanks.
Hands and Skin	Wear leather or other impervious gloves to prevent burns and splashes when handling hot valves and hoses. Wear full length overalls that fully cover the arms and legs. The overalls must be zipped up. It is advisable to wear a hat to prevent hot bitumen splashes causing burns to the head. The head should be covered when handling bitumen to prevent burns from splashes or accidental release. Wear safety boots that are oil resistant and have slip resistant soles. Overalls should cover the top of the boot.
Respiratory	Respiratory protection or breathing apparatus are not usually required unless engineering controls are inadequate for providing sufficient ventilation.

Section 9 Physical and Chemical Properties

Appearance	Black liquid.
Odour	Petroleum solvent odour.
Odour Threshold	Not available
pH	Not available
Boiling Point	approximately 147°C - 199°C for solvent content
Melting Point	Not available
Freezing Point	Not available
Flash Point	>60.5°C

Flammability	Liquid is combustible Vapour above liquid surface is flammable
Upper and Lower Explosive Limits	1% - 6% for kerosene vapour in air
Vapour Pressure	3.2 mm Hg @ 15°C for solvent content
Vapour Density	Not available
Density @ 20°C	0.95 – 1.05 g/cm^3
Solubility	Insoluble in water
Partition Coefficient: N octanol/water	Not available
Auto-ignition Temperature	>210°C
Decomposition Temperature	Not available
Viscosity (25^{0}C)	Not available
Particle Characteristics	Not available

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Reactivity	Violent, explosive reaction when heated above 100°C in the presence of water.
Conditions to Avoid	Do not heat above 158°C.
Incompatible Materials	Product will degrade in presence of strong oxidizing and reducing agents, such as acids and alkalis.
Hazardous Decomposition Products	Normal combustion forms CO_2, H_2O, NO_x, and SO_x. Incomplete combustion may produce CO, H_2S, PCA, PAH, and volatile hydrocarbon and particulate matter.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not triggered however Ingestion may cause pain, nausea or gastrointestinal irritations. Ingestion of hot bitumen cause severe burns.
Dermal	Not triggered.
Inhalation	Not triggered however inhalation of fumes, mists and aerosols may cause throat or lung irritations, nausea, headaches, or dizziness. Symptoms are usually alleviated once the affected person is removed to a well-ventilated area.
Eye	Not triggered however excessive exposure to fumes may cause slight to moderate eye irritation including redness, tearing, swelling and stinging. Irritation quickly subsides once removed from the fumes. Contact with hot bitumen can cause serious burns.
Skin	Not triggered however Repeated skin contact may cause skin irritations and dermatitis. However, this is possibly caused by use of oils, soaps and detergents that are used to remove material from skin. Contact with hot bitumen can cause serious scolding to the skin.

Chronic Effects:

Carcinogenicity	Not triggered.
Reproductive Toxicity	Not triggered.
Germ Cell Mutagenicity	Not triggered.
Aspiration	Not triggered.
STOT/SE	Not triggered.
STOT/RE	Not triggered.
Chronic	Prolonged and/or repeated skin exposure can cause drying and

	defatting, possibly leading to irritation and dermatitis. Possible risk of irreversible effects.

Toxicity of individual components:

Ingredient	Species	Toxicity	Route
Bitumen		No data available	
Kerosene	Guinea pig	LD_{50} = 20,000 mg/kg	Oral
	Rabbit	LD_{50} = 28,000 mg/kg	Oral
	Rabbit	LD_{50} = 180 mg/kg	Intravenous
Petroleum Derivatives	Rat	LD_{50} = 3,000 mg/kg	Oral
	Rabbit	LD_{50} = >2,000 mg/kg	Dermal

Section 12. Ecotoxicological Information

May cause long lasting harmful effects to aquatic life.

Persistence and degradability	Based on its use as a road surfacing material, bitumen is expected to be highly persistant and not degradable in the environment.
Bioaccumulation	No data Available
Mobility in Soil	Insoluble in water. Semi-solid at ambient temperature.
Other adverse effects	No data available

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method:
Mix product with sand, soil or aggregate and allow to cure (dry). Dispose of as clean fill in accordance with local authority regulations. Packaging can often be recycled, otherwise dispose of packaging in a landfill in accordance with local authority regulations.

Disposal methods to avoid: Do not dispose of into aquatic environments including drains, streams, rivers, lakes, ponds or the ocean. See Section 6 for additional information.

Section 14 Transport Information

This product is **NOT** classified as a Dangerous Good for transport in NZ ; NZS 5433:2020 **when temperature is below 100ºC.**

At temperatures above 100ºC the following is applicable**:**
This product is classified as a Dangerous Good for transport in NZ ; NZS 5433:2020

Road, Rail, Sea and Air Transport

UN No	**3256**
Class - Primary	**3**
Packing Group	**III**
Proper Shipping Name	**ELEVATED TEMPERATURE LIQUID, FLAMMABLE N.O.S.**
Marine Pollutant	**No**
Hazchem Code	**2Y**

Section 15 Regulatory Information

EPA Approval Code: HSR001508

HSWA & EPA Controls	Trigger Quantity
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	10 000L
Emergency Response Plan	1000 L
Secondary Containment	1000 L
Restriction of Use	None

Section 16 Other Information

Glossary

Cat	Category
EC_{50}	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
LC_{50}	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD_{50}	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017.
2. EPA Hazardous Substances (Hazard Classification) Notice 2020.
3. Workplace Exposure Standards and Biological Exposure Indices, February 2025 edition 15.
4. NIOSH Pocket Guide to Chemical Hazards, National Institute for Occupational Safety and Health (NIOSH).
5. Assigning a hazardous substance to HSNO Approval (June 2014).
6. Transport of Dangerous goods on land NZS 5433:2020.
7. HSW (Hazardous Substances) Regulations 2017.
8. CCNZ, BPG01 - Best Practice Guideline: Safe Handling of Bituminous Materials Used for Roading.

Disclaimer

This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

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Please contact the New Zealand distributor, if further information is required.

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