

SAFETY DATA SHEET

Section 1	Identification of the material and the supplier
------------------	--

Product: Framesaver™
 Other Names: Boracol 200RH
 Product Code:
 Product Use: **Timber Preservative**
 Restriction for use: Refer to Section 15

New Zealand Supplier: **Koppers Performance Chemicals New Zealand**
 Address: **14 Mayo Road,
 Wiri,
 Auckland, New Zealand**

Telephone: (09) 277 7770
 Fax Number: (09) 277 8011

Emergency Telephone: 0800 243 622

Date of SDS Preparation: **1 December 2019 version 6**

Section 2	Hazards Identification
------------------	-------------------------------

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2017.

EPA Approval No. HSR000907

Pictograms



Toxic/Irritant



Chronic



Ecotoxic

Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1D (oral)	H302	Harmful if swallowed.	Category 4
6.3A	H315	Causes skin irritation.	Category 2
6.4A	H319	Causes serious eye irritation.	Category 2A
6.5A	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	Category 1
6.5B	H317	May cause an allergic skin reaction.	Category 1
6.8B	H361	Suspected of damaging fertility or the unborn child.	
6.9A (Single exposure)	H370	Causes damage to skin, GI tract, Central Nervous System.	Category 1
6.9A (Repeated exposure)	H372	Causes damage to skin, GI tract, Central Nervous System, liver, kidneys and may cause hair loss, weight loss and diarrhoea through prolonged or repeated exposure.	Category 1
9.1B	H411	Toxic to aquatic life with long lasting effects.	Category 2
9.3C	H433	Harmful to terrestrial vertebrates.	-

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P104	Read safety data sheet before use
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe fume, mist, vapours or spray.
P264	Wash hands and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear; eye protection in the form of goggles; PVC or rubber gloves; boots and overalls should be worn when manufacturing or handling the concentrated product.
P281	Use personal protective equipment as required.
P285	In case of inadequate ventilation wear respiratory protection (Type A Organic Vapour Respirator).

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P314	Get medical advice/attention if you feel unwell.
P330	Rinse mouth.
P331	Do NOT induce vomiting.
P338	Remove contact lenses, if present and easy to do. Continue rinsing.
P362	Take off contaminated clothing and wash before re-use.
P391	Collect spillage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P341	IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage Code	Storage Statement
P405	Store locked up.

Disposal Code	Disposal Statement
P501	Dispose of contaminated residues or waste by liaising with a waste disposal company or by disposing at a site approved by relevant local authorities.

Section 3 Composition / Information on Ingredients

Hazardous Ingredients	Wt%	CAS Number
Disodium Octaborate Tetrahydrate	10-30%	12008-41-2
Benzalkonium Chloride	<10%	8001-54-5
Mono Ethylene glycol	<65%	107-21-1
Water	To 100%	7732-18-5

Section 4 First Aid Measures

Recommended on site emergency facilities:

Ensure an eye-wash and safety showers are available and ready for use.

Routes of Exposure:

- IF SWALLOWED:** Rinse mouth. Do NOT induce vomiting. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Seek medical advice if needed.
- IF IN EYES:** Hold eyelids open and rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Get medical attention if irritation persists.
- IF ON SKIN:** Remove contaminated clothing. Wash affected skin immediately with soap and water. Seek medical advice if large area involved or irritation occurs.
- IF INHALED:** Remove victim to fresh air. Loosen tight clothing and remove any contaminated clothing. Keep victim warm and at rest until recovered. If breathing has stopped, ensure airway is clear and apply resuscitation. Obtain immediate medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms:

- Ingestion: Harmful if swallowed.
 Inhalation: May cause asthma symptoms or breathing difficulties if inhaled.
 Skin: Causes skin irritation. May cause an allergic skin reaction.
 Eye: Causes serious eye irritation.
 Chronic: Causes damage to skin, GI tract, Central Nervous System. Suspected of damaging fertility or the unborn child.

Advice to Doctor:

Treat symptomatically. Early diagnosis and treatment of ingestion is important. Ensure emesis is satisfactory. Test for correct metabolic acidosis and hypocalcaemia. If evidence of renal insufficiency apply rapid and sustained diuresis with the use of hypertonic mannitol. Evaluate renal status and begin haemodialysis if indicated.

Section 5 Fire Fighting Measures

Hazard Type	Toxic, ecotoxic, Non-flammable liquid but will burn in a fire.
Hazards from decomposition products	When heated to decomposition Benzalkonium Chloride it emits very toxic fumes of hydrogen chloride and nitrogen oxides.
Suitable Extinguishing media	Use water spray to cool containers exposed to heat. Use alcohol foam, water fog, dry chemical or carbon dioxide to extinguish fire.
Precautions for fire-fighters and special protective clothing	Remain upwind and notify those downwind of potential hazard. Wear full protective equipment (see section 8) including Self Contained Breathing Apparatus (SCBA) when combating fire.
HAZCHEM CODE	3Z

Section 6 Accidental Release Measures

Ensure that non-protected personnel are removed from the area. Eliminate or isolate the source of leak or spill. Wear splash-proof goggles, PVC/rubber gloves, coveralls or protective clothing and boots. Where an inhalation risk exists, wear a Type A (Organic vapour) respirator.

Land Spill or Leaks

This material is highly toxic to the aquatic environment. Do not allow into drains or water-courses. Contain spill by absorbing with sand, earth or other absorbent material. Notify Police or local Health Protection if there is any risk of contamination of water courses. Wash down spill area with copious quantities of water but ensure run off liquid can be safely contained. Transfer contaminated material to suitable drums for disposal. Waste and empty containers must be disposed on it accordance with local government regulations.

Dispose of all wastes by liaising with a waste disposal company or by disposing at a site approved by relevant local authorities.

Water Spill or Leaks

This product is toxic to aquatic life with long lasting effects. Serious loss of aquatic life may result. Ensure that non-protected personnel are removed from the area. Eliminate or isolate the source of leak or spill. Endeavour to contain the contaminated water by pumping out to waste tanks. If not feasible, block off all but the main drainage routes for the contaminated plume. Immediately advise the nearest Regional Council Pollution Control office.

Section 7 Handling and Storage

Precautions for safe handling:

- Keep out of reach of children.
- Read label before use.
- Read safety data sheet before use
- Do not handle until all safety precautions have been read and understood.
- Do not breathe fume, mist, vapours or spray.
- Wash hands and face thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Contaminated work clothing should not be allowed out of the workplace.
- Avoid release to the environment.
- Wear; eye protection in the form of goggles; PVC or rubber gloves; PVC boots and overalls should be worn when manufacturing or handling the concentrated product.
- Use personal protective equipment as required.
- In case of inadequate ventilation wear respiratory protection (Type A Organic Vapour Respirator).

Conditions for safe Storage:

- Store Locked up.
- Store in a dry place away from foodstuffs at all times.
- Store away from sources of heat or ignition.
-

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	CAS # (a)	TWA		STEL	
		ppm(b)	mg/m ³ (c)	ppm(b)	mg/m ³ (c)
Ethylene glycol (vapour & mist)	[107-21-1]	Ceiling 50 ppm (127 mg/m ³)			

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute 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. Workplace Exposure Standards and Biological Exposure Indices NOV 2017 9TH EDITION.

Engineering Controls:

Good Ventilation is required. Local exhaust should be provided if handled in confined or poorly ventilated areas.

Personal Protective Equipment:



Eyes	Wear goggles with side shields. Avoid wearing contact lenses.
Hands and Skin	PVC or rubber gloves, PVC boots and overalls should be worn when manufacturing or handling the concentrated product
Respiratory	A Type A (Organic Vapour) respirator should be used during any spraying operations.
General	At the end of the job, wash gloves and remove, then remove goggles and wash, then remove other protective clothing, finally remove respirator. If using a cartridge type respirator, cartridges should be removed and discarded. If the respirator is disposable, it should be discarded after use. If the respirator is reusable, it should be thoroughly cleaned as per the manufacturer's instruction. Clothing must be changed once contaminated. Protective clothing must be washed after each days work. Contaminated clothing should not be washed with normal household laundry.

Section 9 Physical and Chemical Properties

Appearance	Clear colourless liquid (maybe red if dye added).
Odour	Sweet odour
Odour Threshold	N/A
pH	7.0
Boiling Point	>100°C
Melting Point	Not available
Freezing Point	Not available
Flash Point	<0°C
Flammability	Non Flammable
Upper and Lower Exposure Limits	Not applicable
Vapour Pressure	Not available
Vapour Density	Not available
Specific Gravity	1.232 g/mL @ 20°C
Solubility in water	100%
Partition Coefficient:	Not available
Auto-ignition Temperature	>400°C
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not available

Section 10 Stability and Reactivity

Chemical Stability: Stable.
Conditions to Avoid: Store away from sources of heat or ignition.
Incompatibility: Avoid contact with strong acids and oxidising agents.
Hazardous Decomposition Products: None reported under normal recommended conditions

Section 11 Toxicological Information

Acute Effects:

Swallowed Harmful if swallowed. Oral LD50 (rat) 621.6 mg/kg.
Dermal Not applicable.
Inhalation/Respiratory May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Eye Causes serious eye irritation.
Skin Causes skin irritation. May cause an allergic skin reaction.

Chronic Effects:

Carcinogenicity Not applicable.
Reproductive Toxicity Suspected of damaging fertility or the unborn child.
Germ Cell Mutagenicity Not applicable.
Systematic May cause damage to skin, GI Tract, central nervous system, liver and kidneys through single or prolonged or repeated exposure.
STOT/SE Not applicable.
STOT/RE Not applicable.
Aspiration Not applicable.

Individual component information:

Acute Toxicity:

Chemical Name	Oral – LD50	Dermal – LD50	Inhalation – LC50
Disodium Octaborate Tetrahydrate (12008-41-2)	2550 mg/kg (Rat)	-	-
Benzalkonium Chloride (8001-54-5)	150 mg/kg (Mouse)	1420 mg/kg (rat)	-
Mono EthyleneGlycol (107-21-1)	1670mg/kg(Cat)	-	-

Section 12 Ecotoxicological Information

HSNO Classifications: 9.1B = Toxic to aquatic life with long-lasting effects,
 9.3C = Harmful to terrestrial vertebrates.

Environmental Precautions

- Avoid release to the environment
- Collect spillages
- Prevent spillages from entering waterways.

Individual component information (Please refer to www.epa.govt.nz for full details):

Benzalkonium Chloride (Cas No 8001-54-5):

Route	Species	Duration	Value LC ₅₀ /EC ₅₀
Acute aquatic, fish	Fathead Minnow (<i>Pimephales promelas</i>)	96 hr	0.28 mg/L
Chronic aquatic, fish	Fathead Minnow (<i>Pimephales promelas</i>)	34 days	0.0322 mg/L
Acute aquatic, Crustacean	Daphnia magna (Water flea)	48 hr	0.0059 mg/L
Chronic aquatic, Crustacean	-	-	-
Acute aquatic, Algal	Scenedesmus pannonicus (Green algae)	72hr (static)	0.08 mg/L
Chronic aquatic, Algal	-	-	-
Bioaccumulative	No		
Rapidly Degradable	Yes		

Environmental Fate

Boron Compounds

Terrestrial fate: Persistent for one or more years depending on soil type and rainfall. Less persistent in acid soils. In high rainfall areas leaches rapidly.

If released to water, borates may be taken up by plants with toxic effects. Borates are toxic to plants at low levels (eg above 0.001 ppm for sodium borate, 0.5 ppm for boric acid). Calcium may precipitate out some of the borate, but this process will not significantly reduce toxicity to plants. Borates may be toxic to fish above 3000 ppm.

ENVIRONMENTAL BIOCONCENTRATION: Accumulates in plants.

Mono Ethylene glycol: No data available.

Environmental Exposure Limits No limits set for components of this product at time of preparation of this datasheet.

Section 13 Disposal Considerations

Dispose of contaminated residues or waste by liaising with a waste disposal company or by disposing at a site approved by relevant local authorities.
 Ensure waste container is labelled "Hazardous Waste – Ecotoxic"

Precautions or methods to avoid: Do not allow into drains or water courses. Notify pollution control authorities if material contaminates drains, sewers or waterways.

Regulations:

Dispose of in accordance with the EPA Hazardous Substances (Disposal) Notice 2017.

Section 14 Transport Information

This product is classified as a Dangerous Good for transport in NZ ; NZS 5433:2012

Road and Rail Transport

UN No 3082
 Class-primary 9
 Packing Group III
 Proper Shipping Name Environmentally Hazardous Substance N.O.S
 HAZCHEM Code 3Z

Marine Transport

UN No UN3082
 Class-primary 9
 Packing Group III
 Proper Shipping Name Environmentally Hazardous Substance N.O.S
 Marine Pollutant Yes

Air Transport

UN No 3082
 Class-primary 9
 Packing Group III
 Proper Shipping Name Environmentally Hazardous Substance N.O.S

Limited Quantities Statement:

If the product's individual container is below 5L/kg, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

Under the NZ Land Transport Rule Dangerous Goods 2007 this product must not be loaded into any container alongside food items.

In Schedule 1 of the Rule a maximum of 250 litres may be transported on land as a tool-of-trade, agricultural use or for commercial purposes without a DG endorsement on the driver's license or vehicle placarding (Class 9 PGIII)

Section 15 Regulatory Information

EPA approval No. HSR000907

Hazardous Classifications: 6.1D(oral), 6.3A, 6.4A, 6.5A, 6.5B, 6.8B, 6.9A, 9.1B, 9.3C

HSNO CONTROLS

Trigger quantities for this substance

For more information refer to the controls document on EPA website www.epa.govt.nz

HSW (HS) Regulations 2017	Trigger Quantity
Certified Handlers	Not required
Location Certificate	Not required
Signage Trigger Quantities (Schedule 3)	1000L (9.1B)
Emergency Response Plan (Schedule 5)	1000L (9.1B)
Secondary Containment (Schedule 5)	1000L* (9.1B)
Tracking (Schedule 26)	Not required
HSNO Additional Controls (Restrictions of use)	
77A	No person may use this substance for any purpose other than the treatment of timber.
Hazardous Property Controls Notice 2017	
HPC Notice Part 4 Clause 47	Equipment for class 9 substances must be appropriate
HPC Notice Part 4 Clause 48	Records of application of class 9 pesticides and plant growth regulators
HPC Notice Part 4 Subpart A	Site and storage controls for class 9 substances
Packaging	Refer to Hazardous Substances (Packaging) Regulations 2001
Labelling and advertising	Refer to Hazardous Substances (Labelling) Notice 2017.
Tolerable Exposure Level (TEL)	No TEL set
Environmental Exposure Level (EEL)	No EEL set

* For quantities over 1000 L the secondary containment must be at least 110% of the contained volume.

Section 16 Other Information

Glossary

EC50	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC50	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD50	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. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

This document has been compiled by TCC (NZ) Ltd on behalf of the manufacturer of the product and serves as the manufacturer's Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd by the manufacturer 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) Ltd has 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 accepts 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.

The information herein is given in good faith, but no warranty, express or implied is made.

Please contact the New Zealand proprietor, Koppers Performance Chemicals New Zealand, phone 64 9 277 7770, www.kopperspc.co.nz if further information is required.

Issue Date: 1 December 2019 Review Date: 1 December 2024