Safety Data Sheet

Borate 46

UPDATED: 04 August 2020

Section 1: SUBSTANCE IDENTIFICATION & SUPPLIER

Product Name:	**Borate 46 - Used in General Garden, Rhododendron & Rose Fertiliser**
Other Names:	Calcium sodium tetraborate, ulexite, calcined ulexite, sodium borate and anhydrous calcium
Product Code:	0001210
Recommended Use:	Fertiliser
Company Identification:	Morton Smith - Dawe Limited
Address:	396 Wigram Road, Halswell, Christchurch PO Box 37 - 139 Halswell
Customer Centre:	03 322 8117
National Poisons Information Centre:	0800 POISON (0800 764 766)
Emergency Phone Number:	0800 CHEMCALL (0800 243 622) (24hr) (Emergencies Only)
Transport Emergency Phone Number:	111 - Tell operator what service is needed: Fire, Ambulance or Police

Section 2: HAZARD IDENTIFICATION

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

EPA Approval No:	Fertilisers (subsidiary) - HSR002571
Pictograms	
Signal Word:	**DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.4A	H319	Causes serious eye irritation.	Eye Irrit. 2A
6.8A	H360	May damage fertility or the unborn child.	Repr. 1A

Prevention Code	Prevention Statement
P103	Read label before use.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash hands thoroughly after handling.
P280	Wear protective clothing as detailed in Section 8.
P281	Use personal protective equipment as required.

Response Code	Response Statement
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.

Storage Code	Storage Statement
P405	Store locked up.

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

Section 3: COMPOSITION IDENTIFICATION

INGREDIENT	CAS No.	CONTENT
Double sodium calcium borate	92908-33-3	47% B203

Section 4: FIRST AID MEASURES

Routes of Exposure:	
If in eyes:	Flush with plenty of water for several minutes, holding eyelids open if necessary. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
If on skin	Remove contaminated clothing then wash affected area thoroughly with soap and water. Seek medical attention if needed.
If ingested:	Never give anything by mouth to an unconscious person. If swallowed induce vomiting, rinse mouth, drink one or two glasses of water. Assure that the patient is in an open air space and provide complementary medical care. For advice, contact the Nation Poisons Centre on 0800 POISON (0800 764 766). Seek medical assistance immediately.
If Inhaled:	Remove patient to fresh air. Keep at rest in comfortable position for breathing. . If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance if needed.
Most important symptoms and effects, both acute and delayed	
Symptoms:	
Eyes:	Causes severe eye irritation.
Skin:	Not applicable.
Ingested:	Not triggered however ingestion of large quantities may lead to nausea, vomiting, thirst and headache.
Inhaled:	Not applicable.
Chronic:	May damage fertility or the unborn child.
Notes to Doctor:	Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Hazard Type	Non Flammable
Hazardous Combustion Products:	None known.
Extinguishing Media:	Based on surrounding materials.
Protective Equipment:	Breathing apparatus, goggles, overalls, boots and protective gloves.
HAZCHEM Code:	None allocated.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
Wear appropriate protective clothing as detailed in Section 8. Exclude non-essential people from the area.
Environmental precautions:

Prevent from entering drains, waterways or sewers. If spill does enter waterways contact local authority. Borate 46 is a granulated product which is partially soluble in water. In great quantities it may cause harm to trees and vegetation by absorption through the roots.
Methods and material for containment and cleaning up:
Contain spill and sweep up with a broom and spade or vacuum. Ensure adequate ventilation. Collect and place in sealable containers. Avoid generating dust. In the case of prolonged exposure or high levels of dust in the air, use a dust mask. Reuse or recycle where possible. Dispose according to Section 13. For Water Spills: Take the solution to a neutralization pond. Prevent the solution from being consumed or from polluting water sources or effluents. Warn local authorities so that none of the effected water is used for irrigation or as drinking water until natural dilution brings boron back to the normal environmental levels.

Section 7: HANDLING AND STORAGE

Handling:	Read label before use. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash hands thoroughly after handling. Avoid contact with skin, eyes and inhalation. Avoid generating dust. Use only outdoors or in well ventilated areas. Do not breathe dust. Wear protective clothing as detailed in Section 8. Use personal protective equipment as required.
Storage:	Keep out of reach of children. Store in a dry area away from incompatible materials listed in Section 10. Store locked up. In order to maintain the characteristics of the product and the integrity of the packing and to minimize possible caking, apply the FIFO (first-in first-out) rotation system.

Section 8: EXPOSURE CONTROL / PERSONAL PROTECTION

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	**TWA**		**STEL**	
	ppm	**mg / m^3**	**ppm**	**mg / m^3**
Inspirable dust:	-	10	-	-
Respirable dust:	-	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 2019 11TH EDITION.

Engineering Controls:	Handle in well-ventilation area. If dust generated use local extraction to control. Avoid inhalation of dust.
Personal Protection Equipment: 	
Eyes:	Wear safety goggles with side shield. Eye wash facilities should be available.
Skin / Hands:	Wear protective gloves and overalls.
Respiratory:	If dust is present wear a dust mask and goggles.
General:	Do not eat, drink or smoke while using this product. Remove protective clothing and wash hands and face before meals and after work. Wash protective clothing daily after work.

Section 9: PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Granular
Colour:	White / Grey
Odour:	Odourless
Odour Threshold:	Not available
pH:	8.7 at 20°C (Sol. Saturated)
Boiling Point:	Not available
Melting Point:	960°C
Freezing Point	Not available
Flash Point:	Not available
Flammability:	Not Flammable
Upper and Lower Explosive Limits:	Not available
Vapour Pressure:	Not available
Vapour Density:	Not available
Bulk Density:	850-950 kg / m^3
Water Solubility:	4.93 g/L B2O5 at 20°C
Partition Coefficient:	Not available
Auto-Ignition Temperature:	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not available

Section 10: STABILITY & REACTIVITY

Stability of Substance:	This product is stable under normal conditions.
Possibility of Hazardous Reactions:	Not available
Conditions to Avoid:	Avoid exposure to humidity during storage and transport. Avoid contact with strong acids such as sulfuric and nitric acid. The product will decompose and there will be the formation of boric acid.
Incompatible Materials:	Incompatible with the presence of certain compounds of a basic nature.
Hazardous Decomposition Products:	None known.

Section 11: TOXICOLOGICAL INFORMATION

Acute Effects:

Ingestion:	Not triggered however ingestion of large quantities may lead to nausea, vomiting, thirst and headache.
Dermal:	Not applicable.
Inhalation:	Not applicable.
Skin:	Not applicable.
Eye:	Causes serious eye damage. Direct contact may result in lachrymation (tears), pain, redness and conjunctivitis.

Chronic Effects:

Carcinogenicity:	Not applicable.
Reproductive Toxicity:	May damage fertility or the unborn child.
Germ Cell Mutagenicity:	Not applicable.
Aspiration:	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Not applicable.

Section 12: ECOLOGICAL INFORMATION

This product is not harmful to the environment.

Product:	
Persistence and degradability:	Boron appears in a natural way and is omnipresent in the environment.
Bioaccumulation:	Not bio-accumulative.
Mobility in Soil:	Boron is partially soluble in water. Water contains low concentrations of boron that varies between a range of 0.001 and 0.1 mg/L.
Animal Ecotoxicity:	Toxic to birds and mammals if swallowed in great quantities.
Plant Ecotoxicity:	Great quantities of borate may kill plants. Boron is used in small concentrations as a micronutrient.
Air Ecotoxicity:	Borate does not evaporate and the particulate emission pollution will depend on the size and the concentration of the particle, mobility and degradability.
Other adverse effects:	Avoid washing excessive amounts into streams and waterways. Avoid unintended release into the environment.

Section 13: DISPOSAL INFORMATION

Disposal Method:	Collection into sealable containers and dispose of in an appropriate land fill. Reuse or recycle where possible. If practicable apply excess fertiliser at recommended rates to appropriate land. Observe any local authority restrictions that may apply.
Container Disposal:	Rinse containers thoroughly prior to reuse. Otherwise render unusable and dispose of as waste.
Precautions or Methods to Avoid:	Unacceptable disposal methods include, but are not limited to, burning, burying and dumping.

Section 14: TRANSPORT INFORMATION

This product is **NOT** classified as a Dangerous Good for transport in NZ ; NZS 5433:2012

Section 15: REGULATORY INFORMATION

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017	
EPA Approval Code:	Fertilisers (subsidiary) – HSR002571
HSNO Classification:	6.4A, 6.8A

HSW (HS) Regulations 2017 and EPA Notices	**Trigger Quantity**
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	Not required
Emergency Response Plan	10 000kg (6.8A)
Secondary Containment	10 000kg (6.8A)
Restriction of Use	Only use for the intended purpose.

Section 16: OTHER INFORMATION

Glossary

EC50	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSN	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

This Safety Data Sheet was updated on the date shown and supersedes all previous versions.

Disclaimer

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Please contact Morton Smith - Dawe, if further information is required.

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