



BIOMATE MBC2881

1. Identification

Product identifier BIOMATE MBC2881

Other means of identification None.

Recommended use of the chemical and restrictions on use

Recommended use Biocide

Restrictions on use Industrial usage.

Company/undertaking identification

SUEZ WATER TECHNOLOGIES & SOLUTIONS PTY

LIMITED

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2. Hazard(s) identification

Classification of the hazardous chemical

Physical hazards	Corrosive to metals	Category 1
Health hazards	Acute toxicity, oral	Category 4
	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute	Category 2

hazard

Label elements, including precautionary statements

Hazard symbol(s)



Signal word Danger

Hazard statement(s) May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage.

Causes serious eye damage. Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

PreventionKeep only in original container. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.

Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face

protection.

Response IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off

immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing

before reuse. Absorb spillage to prevent material damage.

Storage Store locked up. Store in corrosive resistant container with a resistant inner liner.



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Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards which do not result in classification

None known.

Supplemental information

None.

3. Composition/information on ingredients

Mixtures

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
2,2-dibromo-3-nitrilopropionamide	10222-01-2	20 - < 30
Sodium bromide	7647-15-6	3 - < 5

4. First-aid measures

Description of necessary first aid measures

Inhalation Oxygen or artificial respiration if needed. Call a poison center or doctor/physician if you feel unwell.

Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or Skin contact

poison control center immediately. Chemical burns must be treated by a physician. Wash

contaminated clothing before reuse.

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if Eye contact

present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical Ingestion

advice/attention if you feel unwell.

Personal protection for first-aid

responders

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show

this safety data sheet to the doctor in attendance.

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may Symptoms caused by exposure

include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including

blindness could result. Prolonged exposure may cause chronic effects.

Medical attention and special

treatment

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

Foam. Powder. Carbon dioxide (CO2).

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 fire fighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting

Move containers from fire area if you can do so without risk.

equipment/instructions

Hazchem code

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

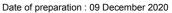
Personal precautions, protective equipment and emergency procedures

None.

For non-emergency personnel

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.







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For emergency responders

Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into

drains, water courses or onto the ground.

Methods and materials for containment and cleaning up Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

7. Handling and storage

Precautions for safe handling Do not get in eyes, on skin, or on clothing. Do not taste or swallow. When using, do not eat, drink

or smoke. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe

good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store locked up. Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Store in tightly closed container. Keep only in the original container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls and personal protection

Control parameters Follow standard monitoring procedures. No exposure limits noted for ingredient(s). Occupational exposure limits

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines No exposure standards allocated.

Appropriate engineering

controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, for example personal protective equipment (PPE)

Eye/face protection Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Keep away from food and drink. Always observe good personal hygiene measures, such as **Hygiene measures**

washing after handling the material and before eating, drinking, and/or smoking. Routinely wash

work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance Liquid **Physical state** Liquid. Liquid. **Form**

> Yellow to amber Color

Odor Slight

Odor threshold Not available. pH (concentrated product) 1.9 Neat







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pH in aqueous solution 3.3 (5% Solution)

Melting point/freezing point -18 °C

Initial boiling point and boiling

range

Not available.

Flash point Not available.

Evaporation rate Slower than Ether
Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower No.

(%)

Not available.

Flammability limit - upper

(%)

Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure < 0.1 mmHg

Vapor pressure temp.21 °CVapor density> 1Relative density1.27Relative density temperature21 °C

Solubility(ies)

Solubility (water) 100 %

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperatureNot available.Decomposition temperatureNot available.Viscosity64 mPa.sViscosity temperature21 °C

Other physical and chemical parameters

Explosive properties Not explosive.

Oxidizing properties Not oxidizing.

pH in aqueous solution 3.3 (5% Solution)

Pour point -15 °C Specific gravity 1.269

VOC 0 % CALCULATED

10. Stability and reactivity

Reactivity May be corrosive to metals.

Chemical stability Not available.

Possibility of hazardous Not available.

reactions

Conditions to avoid Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with

incompatible materials.

Incompatible materials Strong oxidizing agents. Metals.

Hazardous decomposition

products

No hazardous decomposition products are known.

11. Toxicological information

Information on possible routes of exposure

Inhalation Harmful if inhaled.

Skin contact Causes severe skin burns.

Eye contact Causes serious eye damage.



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Ingestion Causes digestive tract burns. Harmful if swallowed.

Symptoms related to exposure Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may

include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including

Test Results

blindness could result.

Species

Harmful if swallowed. **Acute toxicity**

Product	Species	Test Results
BIOMATE MBC2881 (CAS Mixture)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg, (Calculated according to GHS additivity formula)
Inhalation		
LC50	Rat	1.3 mg/l, 4 hours, (Calculated according to GHS additivity formula)
Oral		
LD50	Rat	510 mg/kg, (Calculated according to GHS additivity formula)

2,2-dibromo-3-nitrilopropionamide (CAS 10222-01-2)

Acute Dermal

Components

LD50 Rabbit > 2000 mg/kg

Inhalation

LC50 Rat 0.32 mg/l, 4 Hour

Oral

LD50 Rat 206 mg/kg

Sodium bromide (CAS 7647-15-6)

Acute

Dermal

LD50 Rabbit > 2000 mg/kg

Oral

LD50 Rat 4200 mg/kg

Skin corrosion/irritation Causes severe skin burns and eye damage.

Serious eye damage/irritation Causes serious eye damage.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer. This product is not expected to cause respiratory sensitization.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity Not available.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

Not available.

Specific target organ toxicity -

repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard Not an aspiration hazard.

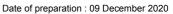
Chronic effects May cause damage to organs through prolonged or repeated exposure.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.



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Product		Species	Test Results	
BIOMATE MBC2881 (CAS Mixture)				
Aquatic				
Algae	ErC50	Algae	1.5 mg/l, Growth Inhibition, 72 hours	
Crustacea	EC50	Daphnia magna	2.5 mg/l, Static Acute Bioassay, 48 hours	
Fish	LC50	Rainbow Trout	3.6 mg/l, Static Acute Bioassay, 96 hours	

Bioaccumulative potential

Partition coefficient
n-octanol / water (log Kow)

2,2-dibromo-3-nitrilopropionamide 0.79

Bioconcentration factor

(BCF)

2,2-dibromo-3-nitrilopropionamide

Species: Fish

Mobility in soil No data available for this product.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

Environmental fate Toxic to aquatic life with long lasting effects. An environmental hazard cannot be excluded in the

event of unprofessional handling or disposal.

Persistence and degradability

No data is available on the degradability of any ingredients in the mixture.

- COD (mgO2/g) 959

BOD 5 (mgO2/g) 0 (calculated data)
 BOD 28 (mgO2/g) 0 (calculated data)

- Closed Bottle Test (% 0
Degradation in 28 days)
- Zahn-Wellens Test (% 0
Degradation in 28 days)

- TOC (mg C/g) 732
- CO2 evolution (modified 78

Sturm test)

13. Disposal considerations

Disposal methodsCollect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow

this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches

with chemical or used container. Dispose of contents/container in accordance with

 $local/regional/national/international\ regulations.$

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some

product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

14. Transport information

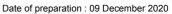
ADG

UN number 3082

UN proper shipping name Transport hazard class(es) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Class 9
Subsidiary risk Packing group III
Environmental hazards Yes
Hazchem code •3Z







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Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number 3265

UN proper shipping name

Corrosive liquid, acidic, organic, n.o.s. (DBNPA (2,2-DIBROMO-3-NITRILOPROPIONAMIDE))

Transport hazard class(es)

Class 8 Subsidiary risk Ш **Packing group Environmental hazards** Yes 153 **ERG Code**

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

3265 **UN** number

CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (DBNPA **UN** proper shipping name

(2,2-DIBROMO-3-NITRILOPROPIONAMIDE)), MARINE POLLUTANT

Transport hazard class(es)

8 Class Subsidiary risk Ш Packing group **Environmental hazards**

Marine pollutant Yes

F-A, S-B **EmS** Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Not established.

Transport in bulk according to Annex II of MARPOL 73/78 and

the IBC Code

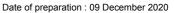
ADG



IATA; IMDG









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Marine pollutant



General information

IMDG Regulated Marine Pollutant.

15. Regulatory information

Safety, health and environmental regulations

National regulations

Group Standard - Water Treatment Chemicals (Corrosive) - HSR002681

This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals (May 2018).

Australia Medicines & Poisons Appendix A

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix B

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix D

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix E

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix F

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix G

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix H

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix I

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix J

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix K

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 10

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 2

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 3

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 4

Sodium bromide (CAS 7647-15-6)

Australia Medicines & Poisons Schedule 5

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 6

Poisons schedule number not allocated.

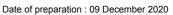
Australia Medicines & Poisons Schedule 7

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 8

Poisons schedule number not allocated.







BIOMATE MBC2881

Australia Medicines & Poisons Schedule 9

Poisons schedule number not allocated.

High Volume Industrial Chemicals (HVIC)

Importation of Ozone Deleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)

Not listed.

National Pollutant Inventory (NPI) substance reporting list

Not listed.

Prohibited Carcinogenic Substances

Not regulated.

Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)

Resricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)

Not listed.

Restricted Carcinogenic Substances

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention Not applicable.

International Inventories

Country(s) or region	Inventory name On inventory	(yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes
*A "Yes" indicates that all compo	nents of this product comply with the inventory requirements administered by the governing country(s)	

16. Other information

09-December-2020 Issue date 09/12/2020 **Revision date**

References: No data available



A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Date of preparation: 09 December 2020



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Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge,

information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other

materials or in any process, unless specified in the text.

Revision information Product and Company Identification: Product and Company Identification

Composition / Information on Ingredients: Ingredients Physical & Chemical Properties: Multiple Properties Toxicological Information: Toxicological Data

Ecological Information: Ecotoxicity

Transport Information: Material Transportation Information

Regulatory Information: Risk Phrases - Labeling

Material Attributes & Uses; Experimental Data: Product Uses

HazReg Data: Europe - EU

GHS: Classification



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