



P&WC

Version: 7.2
Effective date: 14/07/2020
Previous Date: 25/06/2019

SAFETY DATA SHEET

BIOMATE MBC2881E (MemKare NX 20)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name or designation of the mixture BIOMATE MBC2881E (MemKare NX 20)

Version number 7.2

Revision date 14/07/2020

Supersedes date 25/06/2019

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Biocide

Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

JV Process and Water Chemicals LLC

Address: Street V. Kadirov 10, Chirchik city,
Tashkent Region, Republic of Uzbekistan, 111727

Tel: +99871 209 10 40

Email address: info@pwch.uz

www.pwch.uz

1.4. Emergency telephone number

Multilingual emergency number (24/7)

Street V. Kadirov 10, Chirchik city,
Tashkent Region,
Republic of Uzbekistan, 111727

Tel: +99871 209 10 40

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards

Acute toxicity, oral	Category 4	H302 - Harmful if swallowed.
Acute toxicity, inhalation	Category 4	H332 - Harmful if inhaled.
Skin corrosion/irritation	Category 1B	H314 - Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Category 1	H318 - Causes serious eye damage.
Skin sensitisation	Category 1	H317 - May cause an allergic skin reaction.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: 2,2-dibromo-3-nitropropionamide (CAS 10222-01-2) (243,8 g/l)



P&WC

SAFETY DATA SHEET

BIOMATE MBC2881E (MemKare NX 20)

Hazard pictograms



Signal word

Danger

Hazard statements

H314 Causes severe skin burns and eye damage.
 H317 May cause an allergic skin reaction.
 H332 Harmful if inhaled.
 H302 Harmful if swallowed.

Precautionary statements

Prevention

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
 P304 + P340 IF INHALED: Remove person to fresh air and keep 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.
 P310 Immediately call a POISON CENTRE/doctor.

Storage

Not available.

Disposal

Not available.

Supplemental label information

None.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

Mixtures

Chemical description 2,2-dibromo-3-nitropropionamide in organic solvent

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
2,2-dibromo-3-nitropropionamide	10 - < 30	10222-01-2 233-539-7	-	-	

Classification: Acute Tox. 3;H301, Skin Corr. 1B;H314, Skin Sens. 1;H317, Acute Tox. 2;H330, Aquatic Acute 1;H400, Aquatic Chronic 3;H412

The classification of the above substance(s) is given, including the hazard class, category code and hazard statements which are assigned in accordance with their physicochemical, health and environmental hazards. Please refer to section 16 where the full text of each relevant H-statement is listed.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Get medical attention immediately.

Skin contact Take off immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Keep eyelids apart. Get medical attention immediately.

Ingestion Rinse mouth. Do not induce vomiting. Do not give anything to eat or drink. Call a physician or poison control centre immediately.



P&WC

Version: 7.2

Effective date: 14/07/2020

Previous Date: 25/06/2019

SAFETY DATA SHEET

BIOMATE MBC2881E (MemKare NX 20)

4.2. Most important symptoms and effects, both acute and delayed Corrosive effects.
May cause an allergic skin reaction.

4.3. Indication of any immediate medical attention and special treatment needed Not available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Use extinguishing media appropriate for the surrounding materials.
Dry chemical, CO₂, water spray or regular foam.
Move product away from danger area.

Unsuitable extinguishing media None.

5.2. Special hazards arising from the substance or mixture Hydrogen bromide, bromine gas, oxides of carbon and nitrogen evolved in fire.

5.3. Advice for firefighters

Special protective equipment for firefighters Self contained breathing apparatus. (CEN : EN 137)
Protective clothing (CEN : EN 469)
Protective gloves (CEN : EN 659)
Helmet (CEN : EN 443)

Special fire fighting procedures Use standard firefighting procedures and consider the hazards of other involved materials.
Prevent spillage and fire-fighting water from entering in public sewers or the immediate environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Wear protective clothing, gloves and safety goggles.
It is possible to pass or work near the treated system during product application.

For emergency responders Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions Prevent from entering sewers or the immediate environment.
Accidental release of large quantities into the aquatic environment may harm aquatic organisms.
Transport and store in approved containers according to applicable national and international regulations.

6.3. Methods and material for containment and cleaning up Contain and recover by physical means.
Absorb onto inert material and dispose of according to Hazardous Waste Regulations.
Neutralise with soda ash.
Flush area with water.
Spread sand/grit.

6.4. Reference to other sections Please refer also to section no. 8 'Exposure controls' for further information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Should always be handled in a closed system.
Do not create an aerosol.
Use only containers which are compatible with the substance.

7.2. Conditions for safe storage, including any incompatibilities Store in original package.
Exothermic degradation reaction may cause pressure rise in sealed containers at temperatures above 100 °C
Store at temperatures below 40°C
Keep away from light.

7.3. Specific end use(s) Only for professional and industrial users
The material which has been in contact with this product can be cleaned with water.
Product is especially designed for the cleaning and disinfection by applying, soaking or circulating of a diluted aqueous solution. The minimum contact time is: < 1 hours. Proper treatment levels and frequency of addition should be determined by a study of the normalised system performance and depend on many factors, such as water quality, microbial species, biological activity in the water streams, and conditions particular for a given installation. The product should be used in accordance with control procedures that SUEZ Water Technologies & Solutions establishes for a specific application.



P&WC

SAFETY DATA SHEET

BIOMATE MBC2881E (MemKare NX 20)

Shelf life 270 days

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits No exposure limits noted for ingredient(s).
Biological limit values No biological exposure limits noted for the ingredient(s).
Recommended monitoring procedures Not available.
Derived no effect levels (DNELs) Not available.
Predicted no effect concentrations (PNECs) Not available.

8.2. Exposure controls

Appropriate engineering controls Eye wash facilities and emergency shower must be available when handling this product. Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection Splash proof chemical goggles.
 Face shield.
 CEN : EN 166

Skin protection

- **Hand protection** Full shoulder length butyl gloves (Protection against unintentional short-term contact)
 Coating thickness: 0,7 mm
 Full shoulder length nitrile gloves (Protection against unintentional short-term contact)
 Coating thickness: 0,38 mm
 Full shoulder length neoprene gloves (Protection against unintentional short-term contact)
 Coating thickness: 0,75 mm
 Penetration time: > 480 min
 CEN : EN 374-1/2/3/4; EN 420
- **Other** Chemical resistant clothing that ensures full coverage of the hands, arms and body.
 Chemical resistant apron.
 CEN : EN ISO 13688; EN ISO 6530; EN ISO 6529; EN 464

Respiratory protection In case of insufficient ventilation, use face mask with breathing filter, type: A2-P2
 CEN : EN 140; EN 14387

Thermal hazards Not available.

Environmental exposure controls Prevent from entering in public sewers or the immediate environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Colour Colourless to yellow

Physical state Liquid

Odour Mild

Odour threshold Not available.

pH (concentrated product) Not available.

pH in aqueous solution 3,4 (5% SOL.)

Melting point/freezing point -21 °C

Initial boiling point and boiling range Not available.

Flash point > 100 °C SETA(CC)

Evaporation rate < 1 (Ether = 1)

Flammability (solid, gas) Not applicable.



P&WC

SAFETY DATA SHEET

BIOMATE MBC2881E (MemKare NX 20)

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Vapour pressure 18 mm Hg

Vapour pressure temp. 21 °C

Vapour density < 1 (Air = 1)

Relative density 1,18

Relative density temperature 21 °C

Solubility

Solubility (water) 100 %

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not applicable.

Decomposition temperature Not available.

Viscosity 90 cps

Viscosity temperature 21 °C

Explosive properties Not available.

Oxidising properties Not available.

9.2. Other information

Shelf life 270 days

SECTION 10: Stability and reactivity

10.1. Reactivity Not available.

10.2. Chemical stability Material is stable under normal conditions.

10.3. Possibility of hazardous reactions Not applicable.

10.4. Conditions to avoid Keep away from heat.
 Exothermic degradation reaction may cause pressure rise in sealed containers at temperatures above 100 °C.
 Store away from direct sunlight.

10.5. Incompatible materials Avoid mild steel, stainless steel, nickel or aluminium.
 Avoid contact with strong oxidisers.
 Avoid contact with strong reducing agents.
 Avoid contact with strong bases.

10.6. Hazardous decomposition products Hydrogen bromide, bromine gas, oxides of carbon and nitrogen evolved in fire.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Product

Test Results

BIOMATE MBC2881E (MemKare NX 20) (Mixture)

Acute Dermal LD50 Rabbit: > 5000 mg/kg (Calculated according to GHS additivity formula)

Acute Inhalation LC50 Rat: 1,6 mg/l 4 hour (Calculated according to GHS additivity formula (Category 4))

Acute Oral LD50 Rat: 1030 mg/kg (Calculated according to GHS additivity formula (Category 4))

Components

Test Results

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

Acute Dermal LD50 Rabbit: > 2000 mg/kg

Acute Inhalation LC50 Rat: 0,32 mg/l 4 hour

Acute Oral LD50 Rat: 206 mg/kg



P&WC

SAFETY DATA SHEET

BIOMATE MBC2881E (MemKare NX 20)

Acute toxicity	Harmful if inhaled. Harmful if swallowed.
Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/irritation	Causes serious eye damage.
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
Information on likely routes of exposure	
Ingestion	Causes digestive tract burns.
Inhalation	May cause irritation to the respiratory system.
Skin contact	Causes severe skin burns. May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.
Symptoms	Not available.
Aspiration hazard	Based on available data, the classification criteria are not met.
Mixture versus substance information	None known.
Other information	Not available.

SECTION 12: Ecological information

12.1. Toxicity

Product	Species		Test Results
BIOMATE MBC2881E (MemKare NX 20) (CAS Mixture)			
Aquatic			
Algae	EC50	Algae	0,28 mg/l, Static Acute Bioassay, 72 hour, (Refers to active component)
Crustacea	EC50	Daphnia magna	0,86 mg/l, Static Acute Bioassay, 48 hour, (Refers to active component)
	NOEC	Daphnia magna	0,25 mg/l, Flow-Thru Life-Cycle Chronic Bioassay, 21 days, (Refers to active component)
Fish	LC50	Bluegill sunfish	2,3 mg/l, Static Acute Bioassay, 96 hour, (Refers to active component)
		Rainbow trout	2,3 mg/l, Static Acute Bioassay, 96 hour, (Refers to active component)
		Sheepshead minnow	3,4 mg/l, Static Acute Bioassay, 96 hour, (Refers to active component)

12.2. Persistence and degradability

Testing has shown product not to be readily biodegradable. (Refers to active component)
 2,2-dibromo-3-nitrilopropionamide

12.3. Bioaccumulative potential

Bioaccumulation is unlikely.

Partition coefficient n-octanol/water (log Kow)

2,2-dibromo-3-nitrilopropionamide 0,79



P&WC

SAFETY DATA SHEET

BIOMATE MBC2881E (MemKare NX 20)

Bioconcentration factor (BCF)

2,2-dibromo-3-nitrilopropionamide 13
Species: Fish

- 12.4. Mobility in soil Not available.
- 12.5. Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture.
- 12.6. Other adverse effects Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Contaminated packaging** According to Hazardous Waste Regulations.
- EWC (European Waste Code) recommendation : 15 01 10
15 Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified.
15 01 Packaging (including separately collected municipal packaging waste).
15 01 10 Packaging containing residues of or contaminated by dangerous substances.
Depending on the origin and state of the waste, other EWC numbers may be applicable too.
- Disposal methods/information** Dispose of in a safe manner, in accordance with local regulations.
Prevent from entering sewers or the immediate environment.
Deactivate with solution of Na₂CO₃ (pH >9)
Allow the reaction to continue for 24 h
Un-used product and the waste created in an accident must be disposed of as problem waste.
According to Hazardous Waste Regulations.
- EWC (European Waste Code) recommendation : 16 03 05
16 Wastes not otherwise specified in the list.
16 03 Off-specification batches and unused products.
16 03 05 Organic wastes containing dangerous substances.
Depending on the origin and state of the waste, other EWC numbers may be applicable too.

SECTION 14: Transport information

ADR

- 14.1. UN number UN3265
- 14.2. UN proper shipping name Corrosive liquid, acidic, organic, n.o.s. (2,2-dibromo-3-nitrilopropionamide, Mixture)
- 14.3. Transport hazard class(es)
 - Class 8
 - Subsidiary risk -
 - Tunnel restriction code (E)
- 14.4. Packing group II
- 14.5. Environmental hazards No.
- 14.6. Special precautions for user Not available.

RID

- 14.1. UN number UN3265
- 14.2. UN proper shipping name Corrosive liquid, acidic, organic, n.o.s. (2,2-dibromo-3-nitrilopropionamide, Mixture)
- 14.3. Transport hazard class(es)
 - Class 8
 - Subsidiary risk -
- 14.4. Packing group II
- 14.5. Environmental hazards No.
- 14.6. Special precautions for user Not available.

ADN

- 14.1. UN number UN3265
- 14.2. UN proper shipping name Corrosive liquid, acidic, organic, n.o.s. (2,2-dibromo-3-nitrilopropionamide, Mixture)



P&WC

SAFETY DATA SHEET

BIOMATE MBC2881E (MemKare NX 20)

14.3. Transport hazard class(es)

Class 8
Subsidiary risk -

14.4. Packing group II

14.5. Environmental hazards No.

14.6. Special precautions for user Not available.

IATA

14.1. UN number UN3265

14.2. UN proper shipping name Corrosive liquid, acidic, organic, n.o.s. (2,2-dibromo-3-nitrilopropionamide, Mixture)

14.3. Transport hazard class(es)

Class 8
Subsidiary risk -

14.4. Packing group II

14.5. Environmental hazards No.

ERG Code Not available.

14.6. Special precautions for user Not available.

IMDG

14.1. UN number UN3265

14.2. UN proper shipping name Corrosive liquid, acidic, organic, n.o.s. (2,2-dibromo-3-nitrilopropionamide, Mixture)

14.3. Transport hazard class(es)

Class 8
Subsidiary risk -

14.4. Packing group II

14.5. Environmental hazards

Marine pollutant No.

EmS F-A, S-B

14.6. Special precautions for user Not available.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code This substance/mixture is not intended to be transported in bulk.

ADN; ADR; IATA; IMDG; RID



SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended
Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended
Not listed.



P&WC

SAFETY DATA SHEET

BIOMATE MBC2881E (MemKare NX 20)

Version: 7.2
Effective date: 14/07/2020
Previous Date: 25/06/2019

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Not listed.

National regulations

Not available.

15.2. Chemical safety assessment

Not available.

Biocides

11: Preservatives for liquid-cooling and processing systems

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

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).

SECTION 16: Other information

List of abbreviations

COD: Chemical Oxygen Demand
 EC-No: European Commission Number
 IATA: International Air Transport Association
 CAS: Chemical Abstract Service.
 CLP: Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.
 CEN: European Committee for Standardization (Comité Européen de Normalisation).
 TWA: Time Weighted Average.
 STEL: Short-term Exposure Limit.
 LD50: Lethal Dose 50%.
 LC50: Lethal Concentration 50%.
 EC50: Effective Concentration 50%.
 NOEL: No observed effect level.
 BOD: Biochemical oxygen demand.
 TOC: Total Organic Carbon.



P&WC

SAFETY DATA SHEET

BIOMATE MBC2881E (MemKare NX 20)

Version: 7.2

Effective date: 14/07/2020

Previous Date: 25/06/2019

ADR: European agreement concerning the international carriage of dangerous goods by road (Accord européen relatif transport des marchandises dangereuses par route).
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures).
IMDG Code: International Maritime Dangerous Goods Code.
RID: Regulations concerning the international carriage of dangerous goods by rail (Règlement International concernant le transport de marchandises dangereuses par chemin de fer).

References

Information on evaluation method leading to the classification of mixture

Safety data sheets of raw materials.

The physical, health and environmental hazards of this mixture are assessed by applying the classification criteria for each hazard class or differentiation in Parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008 (CLP).

Full text of any H-statements not written out in full under Sections 2 to 15

H301 Toxic if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H330 Fatal if inhaled.
H400 Very toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

Revision information

Composition / Information on Ingredients: Disclosure Overrides
SECTION 8: Exposure controls/personal protection: - Hand protection
SECTION 8: Exposure controls/personal protection: - Other
Physical & Chemical Properties: Multiple Properties
SECTION 11: Toxicological information: Carcinogenicity
SECTION 11: Toxicological information: Germ cell mutagenicity
SECTION 11: Toxicological information: Reproductive toxicity
SECTION 11: Toxicological information: Specific target organ toxicity - repeated exposure
SECTION 11: Toxicological information: Specific target organ toxicity - single exposure
SECTION 16: Other information: Further information
GHS: Classification

Training information

Based on EC Directive / Regulations

Provide training on safe handling while considering the type of application and exposure scenarios.
(EC) No 1907/2006 (REACH)
(EU) 2015/830
(EC) No 1272/2008
(EU) No 1357/2014
(EU) No. 528/2012 and amendments (Biocidal Product Regulation)
All active ingredients have been identified/notified for the relevant Product Types according to the First Review Regulation on existing active substances (EU) No. 1451/2007

Further information

Correction in Section: 8,11