SAFETY DATA SHEET

novatio

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830

MGM-170

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

1.1. Product identifier

: MGM-170 Product name

Registration number REACH : Not applicable (mixture)

Product type REACH : Mixture

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

1.2.1 Relevant identified uses

Primer

1.2.2 Uses advised against

No uses advised against known

1.3. Details of the supplier of the safety data sheet

Supplier of the safety data sheet

Novatio*

Industrielaan 5B

B-2250 Olen

2 +32 14 25 76 40

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info@novatio.be

*NOVATIO is a registered trademark of Novatech International N.V.

Manufacturer of the product

Novatech International N.V.

Industrielaan 5B

B-2250 Olen

2 +32 14 85 97 37

4 +32 14 85 97 38

info@tec7.be

1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch):

+32 14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Not classified as dangerous according to the criteria of Directive(s) 67/548/EEC and/or 1999/45/EC

2.2. Label elements

Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Supplemental information

EUH210 Safety data sheet available on request.

2.3. Other hazards

No other hazards known

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

ne CH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark
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Created by: Brandweerinformatiecentrum voor gevaarlijke stoffen vzw (BIG)

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Publication date: 2020-01-10

Revision number: 0000 Product number: 65584

2-bromo-2-nitropropane-1,3-diol	52-51-7	C≤0.2%	Acute Tox. 3; H331	(1)(9)	Constituent
	200-143-0		Acute Tox. 3; H301		
			Acute Tox. 4; H312		
			Eye Dam. 1; H318		
			Skin Irrit. 2; H315		
			STOT SE 3; H335		
			Aquatic Acute 1; H400		
			Aquatic Chronic 2; H411		

⁽¹⁾ For H-statements in full: see heading 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

If you feel unwell, seek medical advice.

After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

After skin contact:

Rinse with water. Do not apply (chemical) neutralizing agents without medical advice. Take victim to a doctor if irritation persists.

After eve contact:

Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply (chemical) neutralizing agents without medical advice. Take victim to an ophthalmologist if irritation persists.

After ingestion:

Rinse mouth with water. Do not apply (chemical) neutralizing agents without medical advice. Consult a doctor/medical service if you feel

4.2. Most important symptoms and effects, both acute and delayed

4.2.1 Acute symptoms

After inhalation:

No effects known.

After skin contact:

No effects known.

After eve contact:

No effects known.

After ingestion:

No effects known.

4.2.2 Delayed symptoms

No effects known.

4.3. Indication of any immediate medical attention and special treatment needed

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.1.1 Suitable extinguishing media:

Small fire: Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting class B foam extinguisher, Quick-acting CO2 extinguisher. Major fire: Class B foam (alcohol-resistant), Water spray if puddle cannot expand.

5.1.2 Unsuitable extinguishing media:

Small fire: Water (quick-acting extinguisher, reel); risk of puddle expansion.

Major fire: Water; risk of puddle expansion.

5.2. Special hazards arising from the substance or mixture

On burning: release of harmful gases/vapours e.g.: carbon monoxide - carbon dioxide.

5.3. Advice for firefighters

5.3.1 Instructions:

No specific fire-fighting instructions required.

5.3.2 Special protective equipment for fire-fighters:

Gloves (EN 374). Protective clothing (EN 14605 or EN 13034). Heat/fire exposure: compressed air apparatus (EN 136 + EN 137).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No naked flames.

6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

6.1.2 Protective equipment for emergency responders

Gloves (EN 374). Protective clothing (EN 14605 or EN 13034).

Suitable protective clothing

See heading 8.2

Publication date: 2020-01-10

Revision number: 0000 Product number: 65584 2 / 8

⁽⁹⁾ M-factor, see heading 16

6.2. Environmental precautions

Contain released product.

6.3. Methods and material for containment and cleaning up

Take up liquid spill into inert absorbent material. Scoop absorbed substance into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

6.4. Reference to other sections

See heading 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1. Precautions for safe handling

Keep away from naked flames/heat. Observe normal hygiene standards. Keep container tightly closed. Do not discharge the waste into the drain.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Storage temperature: < 50 °C. Protect against frost. Keep container in a well-ventilated place. Keep out of direct sunlight. Meet the legal requirements.

7.2.2 Keep away from:

Heat sources.

7.2.3 Suitable packaging material:

No data available

7.2.4 Non suitable packaging material:

No data available

7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

b) National biological limit values

If limit values are applicable and available these will be listed below.

8.1.2 Sampling methods

If applicable and available it will be listed below.

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

8.1.4 Threshold values

If applicable and available it will be listed below.

8.1.5 Control banding

If applicable and available it will be listed below.

8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

8.2.2 Individual protection measures, such as personal protective equipment

Observe normal hygiene standards. Do not eat, drink or smoke during work.

a) Respiratory protection:

Respiratory protection not required in normal conditions.

b) Hand protection:

Protective gloves against chemicals (EN 374).

Troteetive gloves against enermedis (Etv 374).							
Materials	Measured breakthrough time	Remark	Protection index				
nitrile rubber	> 480 minutes	0.35 mm	Class 6				

c) Eye protection:

Eye protection not required in normal conditions.

d) Skin protection:

Protective clothing (EN 14605 or EN 13034).

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

Revision number: 0000 Product number: 65584 3 / 8

Publication date: 2020-01-10

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical form	Liquid
Odour	No data available on odour
Odour threshold	No data available in the literature
Colour	No data available on colour
Particle size	Not applicable (liquid)
Explosion limits	No data available in the literature
Flammability	Not classified as flammable
Log Kow	Not applicable (mixture)
Dynamic viscosity	1 mPa.s ; 20 °C
Kinematic viscosity	1 mm²/s ; 40 °C
Melting point	0 °C
Boiling point	100 °C
Evaporation rate	0.30 ; Butyl acetate
Relative vapour density	No data available in the literature
Vapour pressure	23 hPa ; 20 °C
Solubility	Water ; soluble
Relative density	1.00 ; 20 °C
Decomposition temperature	No data available in the literature
Auto-ignition temperature	No data available in the literature
Flash point	No data available in the literature
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
рН	No data available in the literature

9.2. Other information

Absolute density	1000 kg/m³ ; 20 °C

SECTION 10: Stability and reactivity

10.1. Reactivity

Heating increases the fire hazard.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Precautionary measures

 ${\it Keep\ away\ from\ naked\ flames/heat}.$

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

On burning: release of harmful gases/vapours e.g.: carbon monoxide - carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

11.1.1 Test results

Acute toxicity

MGM-170

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Publication date: 2020-01-10

Revision number: 0000 Product number: 65584 4 / 8

2-bromo-2-nitropropane-1,3-diol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value	Remark
						determination	
Oral	LD50	OECD 401	173 mg/kg bw -		Rat (male /	Experimental value	
			211 mg/kg bw		female)		
Dermal	LD50		1600 mg/kg bw		Rat (male)	Experimental value	
Inhalation (dust)	LC50	OECD 403	0.12 mg/l - 1.14		Rat (male /	Experimental value	
			mg/l		female)		
Inhalation (aerosol)	LC50		≥ 0.59 mg/l	4 h	Rat (male /	Experimental value	
					female)		

Conclusion

Not classified for acute toxicity

Corrosion/irritation

MGM-170

No (test)data on the mixture available

Judgement is based on the relevant ingredients

2-bromo-2-nitropropane-1,3-diol

Route of exposure	Result	Method	Exposure time	Time point	- •	Value determination	Remark
Eye	Serious eye damage; category 1					Annex VI	
Skin	Irritating; category 2					Annex VI	
Inhalation	Irritating; STOT SE cat.3					Annex VI	

Conclusion

Not classified as irritating to the respiratory system

Not classified as irritating to the skin

Not classified as irritating to the eyes

Respiratory or skin sensitisation

MGM-170

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Conclusion

Not classified as sensitizing for inhalation

Not classified as sensitizing for skin

Specific target organ toxicity

MGM-170

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

MGM-170

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Mutagenicity (in vivo)

MGM-170

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

MGM-170

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

MGM-170

Publication date: 2020-01-10

Revision number: 0000 Product number: 65584 5 / 8

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

MGM-170

No (test)data on the mixture available

Chronic effects from short and long-term exposure

MGM-170

No effects known.

SECTION 12: Ecological information

12.1. Toxicity

MGM-170

No (test)data on the mixture available

Judgement of the mixture is based on the relevant ingredients

2-bromo-2-nitropropane-1,3-diol

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	EPA OPP 72- 1	35.7 mg/l	96 h	Lepomis macrochirus	Flow- through system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EC50	Equivalent to OECD 202	1.4 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EC50	EPA OPPTS 850.5400	0.25 mg/l	72 h	Skeletonema costatum	Static system	Salt water	Experimental value; GLP
	NOEC	EPA OPPTS 850.5400	0.08 mg/l	72 h	Skeletonema costatum	Static system	Salt water	Experimental value; GLP
Long-term toxicity fish	NOEC	OECD 210	21.5 mg/l	49 day(s)	Oncorhynchus mykiss	Flow- through system	Fresh water	Experimental value; GLP
Long-term toxicity aquatic crustacea	NOEC	OECD 211	0.27 mg/l	21 day(s)	Daphnia magna	Flow- through system	Fresh water	Experimental value; GLP

Conclusion

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

12.2. Persistence and degradability

2-bromo-2-nitropropane-1,3-diol

Biodegradation water

Method	Value	Duration	Value determination
OECD 301B: CO2 Evolution Test	70 % - 80 %; GLP	28 day(s)	Experimental value

Conclusion

Contains readily biodegradable component(s)

12.3. Bioaccumulative potential

MGM-170

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

2-bromo-2-nitropropane-1,3-diol

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	IRCEW/IN	3.16			Calculated value

Log Kow

Method	Remark	Value	Temperature	Value determination
EU Method A.8		-0.34 - 0.22		Experimental value

Conclusion

No straightforward conclusion can be drawn based upon the available numerical values

12.4. Mobility in soil

Publication date: 2020-01-10

Revision number: 0000 Product number: 65584 6 / 8

2-bromo-2-nitropropane-1,3-diol

(log) Koc

Parameter	Method	Value	Value determination
log Koc	EPA N 163-1	1.57 - 3.15	Experimental value

Conclusion

Contains component(s) with potential for mobility in the soil

12.5. Results of PBT and vPvB assessment

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

12.6. Other adverse effects

MGM-170

Greenhouse gases

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

European Union

Can be considered as non hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997. The waste code must be assigned by the user, preferably in consultation with the (environmental) authorities concerned.

13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

13.1.3 Packaging/Container

European Union

Waste material code packaging (Directive 2008/98/EC).

SECTION 14: Transport information

Road (ADR), Rail (RID), Inland waterways (ADN), Sea (IMDG/IMSBC), Air (ICAO-TI/IATA-DGR)

14. <u>1. UN number</u>	
Transport	Not subject
14.2. UN proper shipping name	
14.3. Transport hazard class(es)	
Hazard identification number	
Class	
Classification code	
14.4. Packing group	
Packing group	
Labels	
14. <u>5. Environmental hazards</u>	
Environmentally hazardous substance mark	no
14. <u>6. Special precautions for user</u>	
Special provisions	
Limited quantities	
14.7. Transport in bulk according to Annex II of Marpol and the	BC Code
Annex II of MARPOL 73/78	Not applicable, based on available data

SECTION 15: Regulatory information

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

European legislation:

National legislation Belgium

MGM-170

No data available

National legislation The Netherlands

MGM-170

Waterbezwaarlijkheid B (3); Algemene Beoordelingsmethodiek (ABM)

National legislation France

MGM-170

No data available

National legislation Germany

MGM-170

Publication date: 2020-01-10

Revision number: 0000 Product number: 65584 7 / 8

	WGK	1; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017	_
2	2-bromo-2-nitropropane-1,3-diol		
	TA-Luft	5.2.5/I	

National legislation United Kingdom

MGM-170

No data available

Other relevant data

MGM-170

No data available

15.2. Chemical safety assessment

SECTION 16: Other information

Full text of any H-statements referred to under heading 3:

H301 Toxic if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H331 Toxic if inhaled.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

(*) INTERNAL CLASSIFICATION BY BIG

ADI Acceptable daily intake

AOEL Acceptable operator exposure level

CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe)

DMEL Derived Minimal Effect Level
DNEL Derived No Effect Level
EC50 Effect Concentration 50 %

ErC50 EC50 in terms of reduction of growth rate

LC50 Lethal Concentration 50 %

LD50 Lethal Dose 50 %

NOAEL No Observed Adverse Effect Level
NOEC No Observed Effect Concentration

OECD Organisation for Economic Co-operation and Development

PBT Persistent, Bioaccumulative & Toxic
PNEC Predicted No Effect Concentration
STP Sludge Treatment Process

vPvB very Persistent & very Bioaccumulative

M-factor

[2-bromo-z-nitropropane-1,3-diol 10 Acute ECHA (C&L)	2-bromo-2-nitropropane-1,3-diol	10	Acute	ECHA (C&L)
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The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.

Revision number: 0000 Product number: 65584 8 / 8

Publication date: 2020-01-10