

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.01.2024

Version number 4.02 (replaces version 4.01)

Revision: 25.01.2024

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

· 1.1 Product identifier

· **Trade name:** **BROMODES 90**

· **Article number:** 99980000620

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

No further relevant information available.

· Application of the substance / the mixture

Acidic cleaning product for use in food industry.

· 1.3 Details of the supplier of the safety data sheet

· **Manufacturer/Supplier:** Tensio
Doornpark 36
9120 Beveren
Belgium
Tel.: +32 3 755 48 74
Fax.: +32 3 755 51 55
e-mail: info@tensio.be

· Further information obtainable from:

Product Safety Departement: SDS@tensio.be

· 1.4 Emergency telephone number:

België / Belgique: Antigifcentrum / Centre Antipoison : +32 70 245 245

Nederland: Nationaal Vergiftigingen Informatie Centrum : +31 30 274 88 88

Members of the public seeking specific information on poisons should contact:

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111

+3237554874

2 Hazards identification

· 2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

Skin Sens. 1 H317 May cause an allergic skin reaction.

· 2.2 Label elements

· Labelling according to

Regulation (EC) No 1272/2008 The product is classified and labelled according to the GB CLP regulation.

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· **Hazard pictograms**



GHS05 GHS07

· **Signal word**

Danger

· **Hazard statements**

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

· **Precautionary statements**

P260 Do not breathe dusts or mists.

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

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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 CENTER/doctor.

P321 Specific treatment (see on this label).

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **3.2 Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

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Dangerous components:

CAS: 7664-93-9 EINECS: 231-639-5	<i>sulphuric acid</i> ⚠ Skin Corr. 1A, H314 Specific concentration limits: Skin Corr. 1A; H314: C ≥ 15 % Skin Irrit. 2; H315: 5 % ≤ C < 15 % Eye Irrit. 2; H319: 5 % ≤ C < 15 %	50–100%
CAS: 79-08-3 EINECS: 201-175-8	<i>bromoacetic acid</i> ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ Skin Corr. 1A, H314; ⚠ Aquatic Acute 1, H400; ⚠ Skin Sens. 1, H317	≥ 2.5–< 5%
CAS: 75-75-2 EINECS: 200-898-6	<i>methanesulphonic acid</i> ⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302	≥ 2.5–< 5%
CAS: 37971-36-1 EINECS: 253-733-5 Reg.nr.: 01-2119436643-39-XXXX	<i>2-phosphonobutane-1,2,4-tricarboxylic acid</i> ⚠ Met. Corr. 1, H290; ⚠ Eye Irrit. 2, H319	≤ 2.5%

Additional information: For the wording of the listed hazard phrases refer to section 16.

4 First aid measures

4.1 Description of first aid measures

- General information:** Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- After inhalation:** Supply fresh air and to be sure call for a doctor. In case of unconsciousness place patient stably in side position for transportation.
- After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing:** Call for a doctor immediately. Drink plenty of water and provide fresh air. Call for a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Skin contact: burns, pain, redness.
 Eye contact: lesions, irritations, pain, tearing, redness.
 Inhalation: malaise, dizziness
 Ingestion: burns, irritation, pain.

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- **4.3 Indication of any immediate medical attention and special treatment needed** *Treat symptomatically. An eyewash is recommended in the immediate work area.*

5 Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** *Use fire extinguishing methods suitable to surrounding conditions.*
- **5.2 Special hazards arising from the substance or mixture** *During heating or in case of fire poisonous gases are produced.*
- **5.3 Advice for firefighters**
- **Protective equipment:** *Mouth respiratory protective device.*

* **6 Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures** *Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.*
- **6.2 Environmental precautions:** *Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.*
- **6.3 Methods and material for containment and cleaning up:** *Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.*
- **6.4 Reference to other sections** *See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.*

7 Handling and storage

- **7.1 Precautions for safe handling** *Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.*
- **Information about fire - and explosion protection:** *Keep respiratory protective device available.*

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- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

CAS: 7664-93-9 sulphuric acid (50–100%)

WEL (Great Britain) Long-term value: 0.05* mg/m³
*mist: defined as thoracic fraction

IOELV (EU) Long-term value: 0.05 mg/m³

- **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

- **Appropriate engineering controls**

No further data; see section 7.

- **Individual protection measures, such as personal protective equipment**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.

- **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- **Hand protection**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be

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calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection**



Tightly sealed goggles

· **Body protection:**

Protective work clothing

9 Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Physical state**

Fluid

· **Colour:**

Light red

· **Odour:**

Characteristic

· **Odour threshold:**

Not determined.

· **Melting point/freezing point:**

Undetermined.

· **Boiling point or initial boiling point and boiling range**

280 °C

· **Flammability**

Not applicable.

· **Lower and upper explosion limit**

· **Lower:**

Not determined.

· **Upper:**

Not determined.

· **Flash point:**

Not applicable.

· **Decomposition temperature (SADT):**

Not determined.

· **pH**

Not determined.

· **Viscosity:**

· **Kinematic viscosity**

Not determined.

· **Dynamic:**

Not determined.

· **Solubility**

· **water:**

Fully miscible.

· **Partition coefficient n-octanol/water (log value)**

Not determined.

· **Vapour pressure at 20 °C:**

23 hPa

· **Density and/or relative density**

· **Density at 20 °C:**

1.621 g/cm³

· **Relative density**

Not determined.

· **Vapour density**

Not determined.

· **9.2 Other information**

· **Appearance:**

· **Form:**

Fluid

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· **Important information on protection of health and environment, and on safety.**

- **Ignition temperature:** *Product is not selfigniting.*
- **Explosive properties:** *Product does not present an explosion hazard.*
- **Solvent content:**
- **VOC (EC)** *0.00 %*
- **Change in condition**
- **Evaporation rate** *Not determined.*

· **Information with regard to physical hazard classes**

- **Explosives** *Void*
- **Flammable gases** *Void*
- **Aerosols** *Void*
- **Oxidising gases** *Void*
- **Gases under pressure** *Void*
- **Flammable liquids** *Void*
- **Flammable solids** *Void*
- **Self-reactive substances and mixtures** *Void*
- **Pyrophoric liquids** *Void*
- **Pyrophoric solids** *Void*
- **Self-heating substances and mixtures** *Void*
- **Substances and mixtures, which emit flammable gases in contact with water** *Void*
- **Oxidising liquids** *Void*
- **Oxidising solids** *Void*
- **Organic peroxides** *Void*
- **Corrosive to metals** *Void*
- **Desensitised explosives** *Void*

10 Stability and reactivity

- **10.1 Reactivity** *No further relevant information available.*
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **10.3 Possibility of hazardous reactions** *Violent reactions with strong alkalis and oxidising agents.*
- **10.4 Conditions to avoid** *No further relevant information available.*
- **10.5 Incompatible materials:** *No further relevant information available.*
- **10.6 Hazardous decomposition products:** *Bromine*

GB

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11 Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Harmful if swallowed, in contact with skin or if inhaled.

· **LD/LC50 values relevant for classification:**

CAS: 79-08-3 bromoacetic acid

Oral	LD50	100 mg/kg (rat) Acute
Dermal	LD50	50–400 mg/kg (rat)
Inhalative	LC50/ 4h	0.5–2 mg/l (rat)

- **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.
- **11.2 Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

12 Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

CAS: 79-08-3 bromoacetic acid

EC50	0.2 mg/kg (algae)
	72 h
65 mg/kg (Daphnia magna)	24 h

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.

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· **12.7 Other adverse effects**

· **Additional ecological information:**

· **General notes:**

*Water hazard class 3 (German Regulation) (Self-assessment):
extremely hazardous for water*

*Do not allow product to reach ground water, water course or
sewage system, even in small quantities.*

*Must not reach sewage water or drainage ditch undiluted or
unneutralised.*

*Danger to drinking water if even extremely small quantities leak into
the ground.*

*The surfactants ingredients of the product are biodegradable
according to the requirements of regulation 648/2004/EC.*

13 Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation**

*Must not be disposed together with household garbage. Do not
allow product to reach sewage system.*

· **Uncleaned packaging:**

· **Recommendation:**

Disposal must be made according to official regulations.

· **Recommended cleansing
agents:**

Water, if necessary together with cleansing agents.

14 Transport information

· **14.2 UN proper shipping name**

· **ADR**

*UN3264 CORROSIVE LIQUID, ACIDIC,
INORGANIC, N.O.S. (SULPHURIC ACID,
BROMOACETIC ACID)*

· **IMDG, IATA**

*CORROSIVE LIQUID, ACIDIC, INORGANIC,
N.O.S. (SULPHURIC ACID, BROMOACETIC
ACID)*

· **Class**

8 Corrosive substances.

· **Label**

8

· **ADR, IMDG, IATA**

II

· **14.5 Environmental hazards:**

· **Marine pollutant:**

No

· **14.6 Special precautions for user**

Warning: Corrosive substances.

· **Hazard identification number (Kemler code):** 80

· **EMS Number:**

F-A,S-B

· **Segregation groups**

(SGG1) Acids

· **Stowage Category**

B

· **Stowage Code**

SW2 Clear of living quarters.

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- **14.7 Maritime transport in bulk according to IMO instruments** Not applicable.
- **Limited quantities (LQ)** 1L
- **Excepted quantities (EQ)** Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
- **Transport category** 2
- **Tunnel restriction code** E
- **Limited quantities (LQ)** 1L
- **Excepted quantities (EQ)** Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
- **UN "Model Regulation":** UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (SULPHURIC ACID, BROMOACETIC ACID), 8, II

15 Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Poisons Act**

· **Regulated explosives precursors**

CAS: 7664-93-9	sulphuric acid	15%
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· **Regulated poisons**

None of the ingredients is listed.

· **Reportable explosives precursors**

None of the ingredients is listed.

· **Reportable poisons**

None of the ingredients is listed.

- **Labelling according to Regulation (EC) No 1272/2008** The product is classified and labelled according to the GB CLP regulation.

· **Hazard pictograms**



GHS05 GHS07

· **Signal word**

Danger

· **Hazard statements**

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

· **Precautionary statements**

P260 Do not breathe dusts or mists.

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

P303+P361+P353 *IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].*

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 CENTER/doctor.*

P321 *Specific treatment (see on this label).*

P362+P364 *Take off contaminated clothing and wash it before reuse.*

P405 *Store locked up.*

P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*

· *Directive 2012/18/EU*
· *Named dangerous substances - ANNEX I*

None of the ingredients is listed.

· *National regulations:*

· *Information about limitation of use:*

Class	Share in %
	0

· **15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H290 May be corrosive to metals.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H400 Very toxic to aquatic life.

· **Contact:**

Wim Lampaert
MSc Chemistry

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

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IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

ATE: Acute toxicity estimate values

Met. Corr. 1: Corrosive to metals – Category 1

Acute Tox. 3: Acute toxicity – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

*** Data compared to the
previous version altered.**