

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

Printing date 31.07.2015

Version number 4

Revision: 31.07.2015

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

- **Date of compilation:** 01.04.2007
- **1.1 Product identifier**
- **Trade name:** Melpool BR/20
- **CAS Number:**
32718-18-6
- **EC number:**
251-171-5
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the preparation:** Disinfectant
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer / Supplier:**
Melspring International B.V. Phone: +31 (0) 26 - 38420 - 00
Arnhemsestraatweg 8 Fax: +31 (0) 26 - 38420 - 11
NL-6881 NG Velp
- **E-mail address of the competent person responsible for the Safety Data Sheet:** sdb@csb-online.de
- **Informing department:** Sales / Technics
- **1.4 Emergency telephone number:** As above or next toxicological information centre.

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Skin Corr. 1C H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.
Skin Sens. 1 H317 May cause an allergic skin reaction.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS05



GHS07



GHS09

- **Signal word** *Danger*

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- **Hazard-determining components of labelling:**
Bromochloro-5,5-dimethylimidazolidine-2,4-dione
- **Hazard statements**
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.
- **Precautionary statements**
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P273 Avoid release to the environment.
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.
- **Additional information:**
EUH031 Contact with acids liberates toxic gas.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**
- **CAS No. Designation:**
32718-18-6 Bromochloro-5,5-dimethylimidazolidine-2,4-dione
- **Identification number(s):**
- **EC number:** 251-171-5

· **Dangerous components:**

CAS: 32718-18-6	Bromochloro-5,5-dimethylimidazolidine-2,4-dione	~ 96%
EINECS: 251-171-5	⚠ Skin Corr. 1C, H314; ⚠ Aquatic Acute 1, H400; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317	

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
Immediately remove any clothing contaminated by the product.
In case of irregular breathing or respiratory arrest provide artificial respiration.
Take affected persons into the open air.
Do not leave affected persons unsupervised.
Personal protection for the person providing first aid.
Symptoms of poisoning may occur after several hours. Medical observation for at least 48 hours after the accident is recommended.
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness bring patient into stable side position for transport.
- **After skin contact:**
Instantly wash with water and soap and rinse thoroughly.

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Cover wound with a sterile dressing.

Immediate medical treatment necessary. Failure to treat burns can prevent wounds from healing.

· **After eye contact:**

Rinse opened eye for several minutes under running water.

Use eye protection.

Call a doctor immediately.

Remove contact lenses, if present and easy to do.

· **After swallowing:**

Drink copious amounts of water and provide fresh air. Instantly call for doctor.

Do not induce vomiting - Danger of perforation!

· **4.2 Most important symptoms and effects, both acute and delayed** *No further relevant information available.*

· **Danger:** *Danger of gastric perforation.*

· **4.3 Indication of any immediate medical attention and special treatment needed** *symptomatic treatment*

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents** *Only use plenty of water.*

· **For safety reasons unsuitable extinguishing agents** *All but water.*

· **5.2 Special hazards arising from the substance or mixture**

Oxidising by development of oxygen

Formation of poisonous gases during heating or in fires.

Can be released in case of fire:

Bromine compounds

Chlorine compounds

Nitrogen oxides (NO_x)

Carbon monoxide (CO) and Carbon dioxide (CO₂)

· **5.3 Advice for firefighters**

· **Protective equipment:** *Wear self-contained breathing apparatus.*

· **Additional information**

Cool endangered containers with water spray jet.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

If without risk possible, move drums with material away from dangerous area.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation.

Avoid causing dust.

Do not breathe dust.

Put on breathing apparatus.

Avoid contact with skin, eyes and clothes.

Wear protective clothing and keep away unprotected persons.

· **6.2 Environmental precautions:**

Damp down dust with water spray jet.

Do not allow to enter drainage system, surface or ground water.

Inform respective authorities in case product reaches water or sewage system.

· **6.3 Methods and material for containment and cleaning up:**

Ensure adequate ventilation.

Collect mechanically.

Send for recovery or disposal in suitable containers.

Dispose of the material collected according to regulations.

Avoid mixing with acids/materials containing acids under any circumstances.

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- **6.4 Reference to other sections**
See Section 8 for information on personal protection equipment.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.
Any deposit of dust which cannot be avoided must be removed regularly.
Do not breathe dust.
Avoid mixing with acids/materials containing acids under any circumstances.
Do not get in eyes, on skin, or on clothing.
- **Information about protection against explosions and fires:**
Substance/product is oxidising when dry.
Substance/product can reduce the ignition temperature of flammable substances.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Protect from heat.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:**
Store only in the original container.
Observe all local and national regulations for storage of water polluting products.
- **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from flammable substances.
Store away from reducing agents.
Store away from oxidising agents.
Do not store together with acids.
Do not store together with sodium hypochlorite.
- **Further information about storage conditions:**
Store container in a well ventilated position.
Store in cool, dry conditions in well sealed containers.
Protect from heat and direct sunlight.
Maximum storage temperature: < 52 °C
Protect from humidity and keep away from water.
Store in a locked cabinet and out of the reach of children.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**
- **Components with critical values that require monitoring at the workplace:** Not required.
- **DNELs** no data available
- **PNECs** no data available
- **Additional information:** The lists that were valid during the compilation were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
Keep away from foodstuffs, beverages and food.

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Instantly remove any contaminated garments.

Do not carry cleaning cloths impregnated with the product in trouser pockets.

Ensure that washing facilities are available in the work place.

Do not eat, drink or smoke while working.

Avoid contact with the eyes and skin.

Use skin protection cream for preventive skin protection.

Wash hands during breaks and at the end of the work.

· **Breathing equipment:**

In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

· **Protection of hands:**

Impervious gloves

To avoid skin problems reduce the wearing of gloves to the required minimum.

Check the permeability prior to each renewed use of the glove.

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**

Nitrile rubber - NBR

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 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 protection:** *Tightly sealed safety glasses*

· **Body protection:** *Protective work clothing*

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form: *solid
Tablets*

Colour: *white*

· **Smell:** *odourless*

· **Odour threshold:** *no data available*

· **pH-value (10 g/l) at 20 °C:** *~ 3 - 5*

· **Change in condition**

Melting point/Melting range: *156 - 162 °C (OECD 102)*

Boiling point/Boiling range: *Decomposition before reaching boiling point*

· **Flash point:** *not applicable*

· **Inflammability (solid, gaseous)** *not classified*

· **Ignition temperature:** *not determined*

· **Decomposition temperature:** *158 - 162 °C*

· **Self-inflammability:** *Product is not selfigniting.*

· **Danger of explosion:** *Product is not explosive.*

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<ul style="list-style-type: none"> · Critical values for explosion: <li style="padding-left: 20px;">Lower: no data available <li style="padding-left: 20px;">Upper: no data available · Oxidising properties not classified as oxidising EU A.17 UN Manual of Tests and Criteria, Part III, sub-section 34.4.1 (test O.1)
<ul style="list-style-type: none"> · Vapor pressure at 25 °C: 0.38 hPa (OECD 104)
<ul style="list-style-type: none"> · Density at 23 °C: 1.87 g/cm³ (OECD 109) · Relative density at 23 °C 1.87 (H₂O = 1; OECD 109) · Vapour density (AIR = 1): not determined · Evaporation rate not determined
<ul style="list-style-type: none"> · Solubility in / Miscibility with Water at 25 °C: 2.2 g/l hydrolyzes
<ul style="list-style-type: none"> · Partition coefficient (n-octanol/water): < 1 log POW (pH 5 - 9)
<ul style="list-style-type: none"> · Viscosity: <li style="padding-left: 20px;">dynamic: not applicable <li style="padding-left: 20px;">kinematic: not applicable · 9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** see 10.3
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
To avoid thermal decomposition do not overheat.
Temperature over 52 °C.
Avoid impact, friction, heat, sparks, electrostatic charges.
Protect from moisture.
- **10.3 Possibility of hazardous reactions**
Contact with acids releases toxic gases.
Reacts with flammable substances
Reacts with fabric soaked in the product (e.g. cleaning wool)
Acts as an oxidising agent on organic materials such as wood, paper and fats.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
Acids
Reducing agents
Flammable materials
Strong oxidizing agents
Alkaline materials
Ammonium salts
Ammonia
Hypochlorites
- **10.6 Hazardous decomposition products:**
Oxygen
Bromine compounds
Chlorine compounds
Nitrogen oxides (NO_x)

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 Carbon monoxide (CO) and Carbon dioxide (CO₂)

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SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**

· **Acute toxicity**

Harmful if swallowed.

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

32718-18-6 Bromochloro-5,5-dimethylimidazolidine-2,4-dione

Oral	LD50	485 mg/kg (rat) (FIFRA)
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Dermal	LD50	> 2000 mg/kg (rabbit) (FIFRA)
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· **Primary irritant effect:**

· **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.

· **Other information (about experimental toxicology):**

Ames test: positive

Micronucleus test: negative

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

· **Carcinogenicity** Based on available data, the classification criteria are not met.

· **Reproductive toxicity** Based on available data, the classification criteria are not met.

· **STOT-single exposure** Based on available data, the classification criteria are not met.

· **STOT-repeated exposure** Based on available data, the classification criteria are not met.

· **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

32718-18-6 Bromochloro-5,5-dimethylimidazolidine-2,4-dione

EC50/3 h	20 mg/l (bacteria) (OECD 209)
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EC50/48 h	0.87 mg/l (daphnia) (US-EPA)
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ErC50/72 h	2 mg/l (algae (<i>Scenedesmus subspicatus</i>)) (OECD 201)
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LC50/96 h	0.65 mg/l (rainbow trout (<i>oncorhynchus mykiss</i>)) (US-EPA)
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· **12.2 Persistence and degradability** No further relevant information available.

· **Other information:** no data available

· **12.3 Bioaccumulative potential** no data available

· **12.4 Mobility in soil** No further relevant information available.

· **Ecotoxicological effects:**

· **Remark:** Very toxic for fish and aquatic organisms.

· **Additional ecological information:**

· **General notes:** Water hazard class 2 (Assessment by list): hazardous for water

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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· 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
- Recommendation Disposal must be made according to official regulations.
- European waste catalogue:
Waste disposal key numbers from EWC have to be assigned depending on origin and processing.
- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

- 14.1 UN-Number
· ADR, IMDG, IATA UN3085
- 14.2 UN proper shipping name
· ADR UN3085 OXIDIZING SOLID, CORROSIVE, N.O.S. (1-Bromo-3-chloro-5,5-dimethylhydantoin), ENVIRONMENTALLY HAZARDOUS
- IMDG OXIDIZING SOLID, CORROSIVE, N.O.S. (1-Bromo-3-chloro-5,5-dimethylhydantoin), MARINE POLLUTANT
- IATA OXIDIZING SOLID, CORROSIVE, N.O.S. (1-Bromo-3-chloro-5,5-dimethylhydantoin)
- 14.3 Transport hazard class(es)
- ADR
- 
- Class 5.1 (OC2) Oxidising substances.
- Label 5.1 + 8
- IMDG
- 
- Class 5.1 Oxidising substances.
- Label 5.1/8
- IATA
- 
- Class 5.1 Oxidising substances.
- Label 5.1 (8)
- 14.4 Packing group
· ADR, IMDG, IATA III

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<ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR): 	YES Symbol (fish and tree) Symbol (fish and tree)
<ul style="list-style-type: none"> · 14.6 Special precautions for user · Kemler Number: · EMS Number: 	Warning: Oxidising substances. 58 F-A,S-Q
<ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code 	Not applicable.
<ul style="list-style-type: none"> · Transport/Additional information: 	Transport by post may be prohibited or restricted.
<ul style="list-style-type: none"> · ADR · Excepted quantities (EQ): · Limited quantities (LQ): · Excepted quantities (EQ) · Transport category: · Tunnel restriction code: 	E2 5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g 3 E
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	1 kg Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g
<ul style="list-style-type: none"> · UN "Model Regulation": 	UN3085, OXIDIZING SOLID, CORROSIVE, N.O.S. (1-Bromo-3-chloro-5,5-dimethylhydantoin), ENVIRONMENTALLY HAZARDOUS, 5.1 (8), II

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Information about limitation of use:** Employment restrictions concerning young persons must be observed.
- **Decree to be applied in case of technical fault:**
Quantity limits according to "EC Seveso directive" should be observed.
- **Water hazard class:**
Water hazard class 2 (Assessment by list): hazardous for water
ID-Number: 5198
- **Other regulations, limitations and prohibitive regulations**
The substance / components are listed in:
EINECS / ELINCS (Europa)
Toxic Substance Control Act TSCA (USA)
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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· **Reasons for changes:** Changes in classification and labelling

· **Relevant phrases**

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H400 Very toxic to aquatic life.

· **Department issuing MSDS:**

C.S.B. GmbH Phone: +49 - 2151 - 652086-0

Düsseldorfer Str. 113 Fax: +49 - 2151 - 652086-9

47809 Krefeld / Germany

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Corr. 1C: Skin corrosion/irritation, Hazard Category 1C

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

· **Sources:** These data are based on information submitted by pre-suppliers.

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