

# Brineguard 25

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

### 1.1. Product identifier

**Trade name**

Brineguard 25

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

**Relevant identified uses**

Refrigerating fluid.

**Not suitable for use in**

Consumer use.

### 1.3. Details of the supplier of the safety data sheet

**Supplier**

Presto Brandsäkerhet AB

Street address

Värmbolsvägen 2, Box 315

64123 KATRINEHOLM

Sweden

Telephone

+46 (0)10-45 20 000

Email

info@presto.se

### 1.4. Emergency telephone number

NHS 111

**Available outside office hours**

Yes

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

**Classification**

Eye irritation, hazard category 2

**Hazard statements**

H319

**Description**

For the complete meaning of H phrases mentioned in this section, see section 16.

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## 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

### Hazard pictograms



### Signal word

Warning

### Hazard statements

H319 Causes serious eye irritation.

### Precautionary statements

P280 Wear eye protection.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention.

P264 Wash hands thoroughly after handling.

## 2.3. Other hazards

This mixture does not contain any substances that are considered to be PBT or vPvB.

The product does not contain any known or suspected endocrine disruptors.

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## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrase M factor acute M factor chronic	Note
Calcium chloride	10043-52-4 233-140-8 01-2119494219-28 017-013-00-2	22 - 36%	Eye Irrit. 2	H319 - -	-
Morpholine	110-91-8 203-815-1 - 613-028-00-9	0 - <0.1%	Flam. Liq. 3, Acute Tox. 4 - oral, Acute Tox. 4 - dermal, Skin Corr. 1B, Acute Tox. 4 - inhalation	H226, H302, H312, H314, H332 - -	-
Potassium hydroxide	1310-58-3 215-181-3 01-2119487136-33 019-002-00-8	0 - <0.1%	Met. Corr. 1, Acute Tox. 4 - oral, Skin Corr. 1A	H290, H302, H314 - -	Eye Irrit. 2; H319: 0,5 % ≤ C < 2 % Skin Corr. 1A; H314: C ≥ 5 % Skin Corr. 1B; H314: 2 % ≤ C < 5 % Skin Irrit. 2; H315: 0,5 % ≤ C < 2 %
Hydroxyphosphonoacetic acid	23783-26-8 405-710-8 - 015-159-00-1	0 - <0.1%	Acute Tox. 4 - oral, Skin Corr. 1B, Skin Sens. 1, STOT RE 2	H302, H314, H317, H373 - -	-
2-Mercaptobenzothiazole, sodium salt	2492-26-4 219-660-8 - -	0 - <0.1%	Met. Corr. 1 Skin Corr. 1C, Skin Sens. 1, Aquatic Chronic 1	H290, H314, H317, H410 - M-chro=1	-

**Substance additional information**

For the complete meaning of H phrases mentioned in this section, see section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

If symptoms occur, consult a physician.

Place unconscious person in the recovery position and ensure a patent airway.

Do not provide anything to an unconscious person.

When visiting a doctor, bring this safety data sheet.

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## **Inhalation**

Let the person rest at a warm place with fresh air. If symptoms persist, call a physician.

## **Skin contact**

Remove contaminated clothing.  
Wash the skin with soap and water.

## **Eye contact**

Remove contact lenses if that's the case. Flush eyes thoroughly with water for several minutes.

## **Ingestion**

Rinse mouth and then drink plenty of water. |

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

#### **Eye contact**

Irritation of the eyes.

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

Treat symptomatically.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

Not applicable: The product is an extinguisher.

### **5.2. Special hazards arising from the substance or mixture**

None special.

### **5.3. Advice for firefighters**

#### **Special protective equipment for fire-fighters**

Protective measures are taken with regard to other material at the place of the fire.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

Avoid contact with the skin and eyes. Do not inhale.

### **6.2. Environmental precautions**

Prevent discharges to watercourses, waste water or the ground.

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## 6.3. Methods and material for containment and cleaning up

Carefully collect and then transport to the waste management facility. Rinse clean with plenty of water. Clear spills immediately.

Collected material constitutes hazardous waste. Contact your waste contractor or municipality about this.

## 6.4. Reference to other sections

For personal protection see section 8 and for disposal see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Preventive handling precautions

Keep this product away from food and out of reach of children and pets. Avoid contact with skin and eyes.

#### General hygiene

When using, do not eat, drink or smoke.

### 7.2. Conditions for safe storage, including any incompatibilities

The product must be stored in such a way as to prevent health and environmental risks.

Avoid exposure to humans and animals and do not discharge the product in a sensitive environment.

Store in a well-ventilated place. Keep container tightly closed. Store at room temperature.

### 7.3. Specific end use(s)

See section 1.2.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits

OEL

Long-term Exposure Limit (LTEL) Values

36 mg/m<sup>3</sup>

10 ppm

Short-term Exposure Limit (STEL) Values

72 mg/m<sup>3</sup>

20 ppm

#### National occupational exposure limits

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Ingredient	CAS No. EC No.	Exposure limit ppm / mg/m <sup>3</sup>	Short-term exposure limit ppm / mg/m <sup>3</sup>	Source	Remark	Year
Potassium hydroxide	1310-58-3 215-181-3	- -	- 2	EH40/2005 Workplace exposure limits	-	2005
Morpholine	110-91-8 203-815-1	10 36	20 72			

### DNEL/DMEL

Product/Substance name (CAS No./EC No.)	Type	Exposure	Value	Population	Effects
Kalciumklorid (10043-52-4/233-140-8)	DNEL	Acute (short term) Inhalation	10 mg/m <sup>3</sup>	Workers	Local
Kalciumklorid (10043-52-4/233-140-8)	DNEL	Chronic (long term) Inhalation	5 mg/m <sup>3</sup>	Workers	Local
Kaliumhydroxid (1310-58-3/215-181-3)	DNEL	Chronic (long term) Inhalation	1 mg/m <sup>3</sup>	Workers	Local
Kaliumhydroxid (10043-52-4/215-181-3)	DNEL	Chronic (long term) Inhalation	1 mg/m <sup>3</sup>	Consumer	Local

## 8.2. Exposure controls

### **Appropriate engineering controls**

Ensure good ventilation. Eye washes must be available.

### **Eye / face protection**

Safety glasses with side-shields conforming to EN166.

### **Hand protection**

Wear protective gloves according to EN374. When handling, use tight butyl rubber gloves.

### **Other skin protection**

Wear suitable protective clothing.

### **Respiratory protection**

In the event of insufficient ventilation, wear suitable breathing protection.

### **Environmental exposure controls**

Information about the environmental impact can be found in section 12.

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## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**Physical state**

Liquid

**Colour**

Colourless to yellowish

**Odour**

No or uncharacteristic smell

**Melting point / freezing point**

-29 °C

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

100 °C

**Flammability**

No data available

**Lower and upper explosion limit**

No data available

**Flash point**

No data available

**Auto-ignition temperature**

No data available

**Decomposition temperature**

No data available

**pH**

No data available

**Kinematic viscosity**

No data available

**Solubility**

No data available

**Partition coefficient n-octanol/water**

No data available

**Vapour pressure**

No data available

**Density and/or relative density**

1.230 kg/m<sup>3</sup>

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**Relative vapour density**

No data available

**Particle characteristics**

Not applicable

**9.2. Other information**

No further relevant information available.

## SECTION 10: Stability and reactivity

**10.1. Reactivity**

No dangerous reactions are known under normal use.

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

No dangerous reactions known.

**10.4. Conditions to avoid**

Avoid high temperatures and direct sunlight.

**10.5. Incompatible materials**

None known.

**10.6. Hazardous decomposition products**

None under normal conditions.

## SECTION 11: Toxicological information

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Information given is based on data on the components and the toxicology of similar products.

**Acute toxicity**

The product is not classified as acute toxic, but contains low levels of harmful substances.

Product / Substance name CAS / EC no.	Dose descriptor	Value / Dose	Exposure route	Duration of exposure	Test animals
Potassium hydroxide 1310-58-3 / 215-181-3	LD50	333 mg/kg	Oral	24h	Rat



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Product / Substance name CAS / EC no.	Dose descriptor	Value / Dose	Exposure route	Duration of exposure	Test animals
2-Mercaptobenzothiazole, sodium salt 2492-26-4 / 219-660-8	LD50	2100 mg/kg	Oral	24h	Rat
Calcium chloride 10043-52-4 / 233-140-8	LD50	1000 mg/kg	Oral	24h	Rat

**Skin corrosion/irritation**

Based on available data, the classification criteria are not met. Light irritation can occur during prolonged or repeated contact.

**Serious eye damage/irritation**

Causes serious eye irritation.

**Respiratory or skin sensitisation**

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

**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**

None of the substances listed in section 3 is classified as toxic through aspiration.

**11.2. Information on other hazards****Endocrine disrupting properties**

Not applicable.

**Other information**

No information available.

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## SECTION 12: Ecological information

### 12.1. Toxicity

#### Acute toxicity

Not classified as dangerous for the environment. However, this does not exclude the possibility of large or frequent spills can be hazardous to the environment.

#### Toxicity

The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

#### Acute fish toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
Calcium chloride 10043-52-4 / 233-140-8	LC50	10650 mg/l	96h	Lepomis macrochirus
Potassium hydroxide 1310-58-3 / 215-181-3	LC50	80 mg/L	96h	Gambusia affinis (Mosquito fish)
Calcium chloride 10043-52-4 / 233-140-8	LC50	> 10000 mg/l	96h	Fish
Potassium hydroxide 1310-58-3 / 215-181-3	LC50	80 mg/kg	96h	Gambusia affinis (Mosquito fish)
Potassium hydroxide 1310-58-3 / 215-181-3	LC50	75 mg/L	96h	Rainbow trout
Potassium hydroxide 1310-58-3 / 215-181-3	LC50	125 mg/l	96h	Fish
Potassium hydroxide 1310-58-3 / 215-181-3	LC50	28.6 mg/L	24h	Fish
Calcium chloride 10043-52-4 / 233-140-8	LC50	13400 mg/l	96h	Gambusia affinis (Mosquito fish)

#### Acute algae toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
Sodium mercaptobenzothiazole 2492-26-4 / 219-660-8	IC50	0.5 mg/l	72h	Algae

#### Acute crustacean toxicity

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Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
Calcium chloride 10043-52-4 / 233-140-8	EC50	649 mg/l	96h	Daphnia magna (Big water flea)
Potassium hydroxide 1310-58-3 / 215-181-3	EC50	1 - 240 mg/l	48h	Daphnia magna (Big water flea)
Sodium mercaptobenzothiazole 2492-26-4 / 219-660-8	EC50	0.71 mg/l	48h	Daphnia magna (Big water flea)

## 12.2. Persistence and degradability

Biodegradable.

## 12.3. Bioaccumulative potential

Does not bioaccumulate.

## 12.4. Mobility in soil

### Mobility

The product is miscible with water and is therefore mobile in soil and water.

## 12.5. Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

## 12.6. Endocrine disrupting properties

Not applicable

## 12.7. Other adverse effects

### Other adverse effects

No information available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal considerations

The product and its packaging are classified as hazardous waste.

Packaging that is not completely emptied may contain residues of hazardous substances and should therefore be disposed of as hazardous waste as above.

Packaging that is completely emptied can be left for recycling.

This product is not usually recycled.

Disposal must be carried out in accordance with local regulations.

Waste code	Description
16 10 01*	aqueous liquid wastes containing hazardous substances

Please note - an asterisk (\*) next to a code denotes that it is HAZARDOUS WASTE.

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## Other

### Waste management

The waste code is a recommendation. Waste codes should be assigned by the user based on the application for which the product was used.

## SECTION 14: Transport information

### 14.1. UN number

Not dangerous goods according to transport regulations.

### 14.2. UN proper shipping name

Not applicable.

### 14.3. Transport hazard class(es)

#### Label

Not applicable.

### 14.4. Packing group

Not applicable.

### 14.5. Environmental hazards

No.

### 14.6. Special precautions for user

Not applicable.

### 14.7. Maritime transport in bulk according to IMO instruments

Not intended for bulk transport.

## SECTION 15: Regulatory information

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

#### EU regulations

Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures (CLP).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Directive 2008/98/EC of the European Parliament and of the Council on waste.

#### National regulations

Control of Substances Hazardous to Health 2002 (COSHH).

EH40/2005 Workplace exposure limits (Fourth edition).

### 15.2. Chemical safety assessment

No chemical safety assessment has been performed.

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## SECTION 16: Other information

### **Abbreviations**

PBT: Persistent, Bioaccumulative and Toxic.

vPvB: very Persistent and very Bioaccumulative.

LD50: Lethal dose for 50 % of the test population (lethal median dose).

LC50: Deadly concentration for 50 % of a test population.

EC50: The concentration of a substance that affects 50 % of a population over a given period of time.

IC50: The half maximal inhibitory concentration.

### **Evaluation methods for classification**

Classification is based on the additivity approach according to Regulation (EC) No 1272/2008 (CLP).

### **Phrase meaning**

Flam. Liq. 3 - Flammable liquids, hazard category 3

Acute Tox. 4 - oral - Acute toxicity, oral, hazard category 4

Acute Tox. 4 - dermal - Acute toxicity, dermal, hazard category 4

Skin Corr. 1B - Skin corrosion, hazard category 1B

Acute Tox. 4 - inhalation - Acute toxicity, inhalation, hazard category 4

Met. Corr. 1 - Corrosive to metals, hazard category 1

Skin Corr. 1A - Skin corrosion, hazard category 1A

Skin Sens. 1 - Skin sensitisation, hazard category 1

STOT RE 2 - Specific Target Organ Toxicity — Repeated exposure, hazard category 2

Skin Corr. 1C - Skin corrosion, hazard category 1C

Aquatic Chronic 1 - Hazardous to the aquatic environment — Chronic hazard category 1

Eye Irrit. 2 - Eye irritation, hazard category 2

H226 Flammable liquid and vapour.

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.