

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 04/10/2008

Reviewed on 04/10/2008

1 Identification of substance· **Product details**· **Trade name:** Sodium Perborate Monohydrate Q40· **Application of the substance / the preparation** Bleaching component of washing and cleaning agents· **Manufacturer/Supplier:**

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· **Information department:** msds.asg@treibacher.com· **Emergency information:**

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2 Composition/Data on components· **Chemical characterization**· **Components:**

10332-33-9 Sodium perborate monohydrate

Xn, Xi, O; R 8-22-36/38 ≥ 94%

· **Additional information:**Molecular formula: NaBO₃·H₂O / NaBO₂·H₂O₂

Molecular weight: 99.83 g/mol

3 Hazards identification· **Hazard description:**

Xn Harmful

O Oxidizing

· **Information pertaining to particular dangers for man and environment:**

R 8 Contact with combustible material may cause fire.

R 22 Harmful if swallowed.

R 36/38 Irritating to eyes and skin.

· **Classification system:**· **NFPA ratings (scale 0 - 4)**

Health = 1

Fire = 3

Reactivity = 0

The substance possesses oxidizing properties.

· **HMIS-ratings (scale 0 - 4)**

HEALTH	1
FIRE	3
REACTIVITY	0

Health = 1

Fire = 3

Reactivity = 0

4 First aid measures· **General information:** Personal protection for the First Aider.· **After inhalation:**

Take affected persons into fresh air and keep quiet.

Seek medical treatment in case of complaints.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.· **After swallowing:**

If swallowed, rinse mouth with water (only if the person is conscious).

Drink plenty of water and provide fresh air.

Do not induce vomiting; immediately call for medical help.

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· **Information for doctor:** Treat symptomatically.**5 Fire fighting measures**· **Suitable extinguishing agents:**

Water

Foam

· **For safety reasons unsuitable extinguishing agents:**

Carbon dioxide

Organic media

· **Special hazards caused by the material, its products of combustion or resulting gases:**

In case of fire, the following can be released:

Oxygen

Heat will increase pressure and may lead to the receptacle bursting.

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

· **Additional information**

Remove persons from danger area.

Cool endangered receptacles with water spray.

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

6 Accidental release measures· **Person-related safety precautions:** Wear protective clothing.· **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.· **Measures for cleaning/collecting:**

Avoid formation of dust.

Send for recovery or disposal in suitable receptacles.

Clean the affected area carefully; suitable cleaners are:

Water

Dispose of the collected material according to regulations.

7 Handling and storage· **Handling:**· **Information for safe handling:**

The usual precautionary measures for handling chemicals should be followed.

Wear protective clothing.

Prevent formation of dust.

· **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Contact with combustible material may cause fire.

· **Storage:**· **Requirements to be met by storerooms and receptacles:** Store in cool, dry conditions in well sealed receptacles.· **Information about storage in one common storage facility:**

Do not store together with alkalis (caustic solutions).

Store away from reducing agents.

Store away from flammable substances.

· **Further information about storage conditions:**· **Maximum storage temperature:** < 40 °C· **Recommended storage temperature:** < 30 °C**8 Exposure controls and personal protection**· **Additional information about design of technical systems:** Ensure good ventilation/exhaustion at the workplace.· **Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **Additional information:** The lists that were valid during the creation were used as basis.· **Personal protective equipment:**· **General protective and hygienic measures:**

Wash hands before breaks and at the end of work.

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Avoid contact with the eyes and skin.

· **Breathing equipment:**

Use suitable respiratory protective device when high concentrations are present.

Short term filter device:

Filter P2

· **Protection of hands:**

Protective gloves

· **Material of gloves**

PVC gloves

Rubber gloves

· **Eye protection:** Gauze goggles· **Body protection:** Protective work clothing**9 Physical and chemical properties**

· General Information	
Form:	Salt Crystalline free-flowing
Color:	White
Odor:	Odorless
Melting point/Melting range:	Not applicable
Boiling point/Boiling range:	Not applicable
Flash point:	Not applicable
Flammability (solid, gaseous):	Contact with combustible material may cause fire.
Decomposition temperature:	ca. 60°C (ca. 140°F)
Auto igniting:	None
Danger of explosion:	Not applicable
Explosion limits:	
Lower:	Not applicable
Upper:	Not applicable
Oxidizing properties	yes.
Vapor pressure:	Not applicable
Density:	Not determined.
Bulk density:	400-650 kg/m ³
Solubility in / Miscibility with Water at 20°C (68°F):	ca. 15 g/l
pH-value (15 g/l) at 20°C (68°F):	10
Additional information:	Typ. grain size: 95 % > 0.10 mm Active oxygen content: ca. 15 %

10 Stability and reactivity· **Thermal decomposition / conditions to be avoided:**

Protect from heat and direct sunlight.

Protect from humidity and water.

· **Thermal decomposition starts at > 60 °C.**· **Materials to be avoided:**

Metal salts.

Keep away from metals.

Keep away from alkaline solutions.

Keep away from acids, reducing agents and flammable materials.

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- **Dangerous reactions**
 - Exothermic thermal decomposition.
 - Reacts with reducing agents.
 - Reacts with alkali (lyes).
 - Reacts with acids.
- **Dangerous products of decomposition:** No dangerous decomposition products known.
- **Additional information:**
 - Stable at ambient temperature.
 - To avoid thermal decomposition do not overheat.
 - Contact with combustible material may cause fire.
 - The product is not flammable.

11. Toxicological information· **Acute toxicity:**· **LD/LC50 values that are relevant for classification:**

Oral	LD50	890 mg/kg (Rat (female))
		1300 mg/kg (Rat (male))
Dermal	LD50	>2000 mg/kg (Rabbit)

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Subacute to chronic toxicity:**
 - NOEL (oral, Rat): < 1000 mg/kg (28-Day-Study)
 - Effects/organs affected:
 - Irritation of gastric mucosa.
 - Changes of blood parameters.

12. Ecological information

- **Information about elimination (persistence and degradability):**
 - The product is instabile in water. The declaration of the elimination also refers to the hydrolysis products
- **Other information:** Abiotic degradation because of hydrolysis and reduction.
- **Behavior in environmental systems:**
- **Mobility and bioaccumulation potential:** Not determined
- **Ecotoxicological effects:**

· **Aquatic toxicity:**

EC50/48h	11 mg/l (Daphnia magna)
IC50/96 h	26.8 mg/l (Scenedesmus subspicatus)
LC50/96h	51 mg/l (Danio rerio)
NOEC/48 h	8 mg/l (Daphnia magna)
NOEC/96h	25 mg/l (Danio rerio)

- **Additional ecological information:**
- **AOX-indication:** The product does not contain organically bounded halogens (AOX-free).
- **General notes:** Water hazard class 1 (Assessment by list): slightly hazardous for water

13. Disposal considerations

- **Product:**
- **Recommendation:** Must be specially treated adhering to official regulations.
- **Waste disposal key:**
 - None
 - (202/532/EG)
- **Uncleaned packagings:**
- **Recommendation:** Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

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14 Transport information

· Land transport ADR/RID (cross-border):

· ADR/RID class: -

· Maritime transport IMDG:

· IMDG Class: -

· Air transport ICAO-TI and IATA-DGR:

· ICAO/IATA Class: -

· Transport/Additional information: Not dangerous according to the above specifications.

15 Regulations

· Sara

· Section 355 (extremely hazardous substances): Substance is not listed.

· Section 313 (Specific toxic chemical listings): Substance is not listed.

· TSCA (Toxic Substances Control Act): Substance is not listed.

· Proposition 65

· Chemicals known to cause cancer: Substance is not listed.

· Chemicals known to cause reproductive toxicity for females: Substance is not listed.

· Chemicals known to cause reproductive toxicity for males: Substance is not listed.

· Chemicals known to cause developmental toxicity: Substance is not listed.

· Cancerogenity categories

· EPA (Environmental Protection Agency) Substance is not listed.

· IARC (International Agency for Research on Cancer) Substance is not listed.

· NTP (National Toxicology Program) Substance is not listed.

· TLV (Threshold Limit Value established by ACGIH) Substance is not listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.

· OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

· Product related hazard informations:

The product has been classified and marked in accordance with directives on hazardous materials.

· Hazard symbols:

Xn Harmful
O Oxidizing

· Risk phrases:

8 Contact with combustible material may cause fire.

22 Harmful if swallowed.

36/38 Irritating to eyes and skin.

· Safety phrases:

17 Keep away from combustible material.

24/25 Avoid contact with skin and eyes.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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.

· Department issuing MSDS: Contact point for technical information: Tel.: +43 (0) 4262-505-291

· * Data compared to the previous version altered.

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The information given in the foregoing is based on our current knowledge and experience and intends to describe our product with regard to possible safety requirements. The information given does not imply any representations or warranties as to the properties or grade of the product.

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