

Safety data sheet

ORP Standard

Version 1.0

Effective date: 03-06-2020



SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier

Trade name: ORP Standard.

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

Product use: Buffer solution.

1.3 Details of the Supplier of the safety data sheet:

Supplier: Unisense A/S
Langdyssen 5
DK-8200 Aarhus N
Denmark
Tel: +45 8944 9500
www.unisense.com

Contact: sales@unisense.com

1.4 Emergency telephone number:

Use your national or local emergency number.

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture according to CLP no. 1272/2008.

Skin Corr. 1A; H314, STOT RE 1; H372.

2.2 Label elements according to CLP no. 1272/2008.

Hazard pictograms:



Signal word:

Danger

Contains: Potassium Iodide, Potassium hydroxide.

Hazard statements:

H314 Causes severe skin burns and eye damage.

H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary statements:

Prevention:

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe mist/vapors/spray.

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

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Response:

P301 + 330 + 331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

P305 + 351 + 338 + P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Storage:

-

Disposal:

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Additional information:

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2.3 Other hazards.

The product does not contain any PBT or vPvB substances.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances: The product is a mixture.

3.2 Mixture:

CAS/EC-no.	REACH-no.	Name	Content %	Classification
7732-18-5 / 231-791-2	-	Water	50-60	-
7681-11-0 / -		Potassium Iodide	40-50	STOT RE 1; H372.
1310-58-3 / 215-181-3	-	Potassium hydroxide	1-10	Acute Tox. 4; H302, Skin Corr. 1A; H314*
1303-96-4 / 215-540-4	-	Boric acid	0.1-1	Repr. 1B H360FD**
7553-56-2 / -	-	Iodide	0.1-1	Acute Tox. 4; H302+ H312+H332, Skin Irrit. 2; H315, Eye Irrit. 2; H319, STOT SE 3; H335, STOT RE 1; H372, Aquatic Acute 1; H400 (M=1).

*Potassium hydroxide, specific concentration limits:

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(0.5 =<C < 2) Eye Irrit. 2, H319,
(0.5 =<C < 2) Skin Irrit. 2, H315,
(2 =<C < 5) Skin Corr. 1B, H314,
(C >= 5) Skin Corr. 1A, H314.

**Specific concentrations limit: Repr. 1B; H360 FD ≥5.5 %.

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures:

General information:	In the case of symptoms or doubt: Contact a doctor or casualty department.
Inhalation:	Move victim to fresh air. Keep person calm and warm. Consult a doctor.
Skin contact:	Wash off immediately with soap and plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
Eye contact:	In case of contact with substance, immediately flush eyes with running water for at least 15 minutes. Remove contact lenses. Get medical attention immediately.
Ingestion:	Clean mouth with water and drink afterwards plenty of water. Get Medical advice/attention if you feel unwell.

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

Causes severe skin burns and eye damage.

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

Treat symptomatically.

SECTION 5. FIRE FIGHTING MEASURES

5.1 Extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media:
None known.

5.2 Special hazards arising from the substance or mixture:
The product itself does not burn.

5.3 Advice for firefighters: Wear self-contained breathing apparatus and protective clothing to prevent contact.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

See section 8 for recommendations on the use of personal protective equipment. Ensure adequate ventilation. Avoid contact with skin and eyes. Do not breathe vapors/mist. Prevent further leakage or spillage if safe to do so.

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6.2 Environmental precautions:

Do not flush into surface water or sanitary sewer system.

6.3 Methods and material for containment and cleaning up:

Small Spills: wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable and closed containers for disposal.
Then rinse the spillage site with plenty of water. Collected material is disposed of in accordance with section 13.

6.4 Reference to other sections:

See section 8 for personal protection.
See section 13 for disposal.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling:

Wear appropriate personal protective equipment - see section 8.
Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation of mist/vapors. Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Use according to instruction from supplier.

7.2 Conditions for safe storage, including any incompatibilities:

Keep container tightly closed in a dry and well-ventilated place.
Store at room temperature in the original container.
Protect from direct sunlight and frost.

7.3 Specific end use(s):

This product should only be used for applications described in section 1.2.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits EH40 (Great Britain) 2018:

CAS-no:	Name:	Limits:	Comments
1310-58-3	Potassium hydroxide	Short-term value: 2 mg/m ³	-
7681-11-0	Potassium Iodide	Long-term value: 0.01 ppm	-
10043-353	Boric Acid	Short-term value: 2 mg/m ³ Long-term value: 6 mg/m ³	
7553-56-2	Iodine	Short-term value: 0.1 ppm Long-term value: 0.01 ppm	

DNEL/PNEC:

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8.2 Exposure controls

Appropriate technical measures:

Airborne concentrations, must be kept lowest possible and under the existing threshold limiting values. In case the air streams in the work room is not sufficient, use for example local exhaust ventilation systems.

General information / hygiene measures:

Smoking, consumption of food or liquid, and storage of tobacco, food or liquid, are not allowed in the workroom. Whenever you take a break in using this product and when you have finished using it, all exposed areas of the body must be washed. Make sure that eyewash and emergency showers are clearly marked and available. Avoid contact with skin, eyes and clothing. Do not breathe vapors/mist.

Personal protective equipment:

Only CE-marked personal protection equipment should be used.

Respiratory protection:

None under normal use conditions. In case of inadequate ventilation wear respiratory protection.

Hand protection:

Work gloves. EN 374.
Option: Nitrile/PVC gloves ≥ 480 min.

Eye protection:

Use tight-fitting safety goggles/face protection. EN 166.

Body protection:

Wear impervious clothing.

Measures to avoid environmental exposure:

Prevent product from entering surface water or sewage.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance: Liquid	Color: Dark amber	Odor: None	PH: 5.5-8.5	Viscosity: No data
Flashpoint: No data	Boiling point: ~100°C	Vapor pressure: No data	Density g/cm³: No data	Meltingpoint: Not relevant
Thermal decomposition: No data	Auto-ignition: No danger	Explosive limits Not explosive	Solubility in water: Soluble	Decomposition temperature: No data

9.2 Other information:

None.

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity:

None known.

10.2 Chemical stability:

Stable under recommended storage and handling conditions.

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10.3 Possibility of hazardous reactions:

None under normal processing.

10.4 Conditions to avoid: Extremes of temperature and direct sunlight.

10.5 Incompatible materials: No information available.

10.6 Hazardous decomposition products:

None at recommended storage conditions and use.

Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

Acute toxicity: Not classified.

Skin corrosion/irritation: Causes severe skin burns.

Serious eye damage/irritation: Causes eye damage.

Respiratory or skin sensitization: Not classified.

Germ cell mutagenicity: Not classified.

Carcinogenicity: Not classified.

Reproductive toxicity: Not classified.

Specific target organ toxicity - single exposure: Causes damage to organs through prolonged or repeated exposure.

Specific target organ toxicity – repeated exposure: Not classified.

Aspiration hazard: Not classified.

Additional information: None.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity: Not classified harmful to the environment.

Potassium Iodide – cas 7681-11-0:
Fish – LC50 – 96 h.: >100 mg/l

Potassium hydroxide – cas 1310-58-3:
Fish – LC50 – 96 h.: 80 mg/l

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Boric Acid – cas 10043-35-3: Fish –
LC50 – 72 h.: >100 mg/l Daphnia –
EC50 – 48 h.: 115-153 mg/l

Iodine – cas 7553-53-2:
Fish – LC50 – 96 h.: 1.67 mg/l

12.2 Persistence and degradability:

No information available.

12.3 Bioaccumulative potential:

No information available.

12.4 Mobility in soil:

Potassium hydroxide – cas 1310-58-3: Log Pow: 0.83.

Boric Acid – cas 10043-35-3: Log Pow: -0.757.

12.5 Result of PBT and vPvB assessment:

The product does not meet the criteria for PBT or vPvB.

12.6 Other adverse effects:

None known.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Must be disposed of in accordance with local and national regulations. Residues are usually not hazardous waste. The given EWC-code is a guiding, and the code depends on how the waste is formed. User must evaluate the choice of correct code.

Contaminated packing:

Properly cleaned container is disposed of according to packaging material, otherwise as the product itself.

SECTION 14. TRANSPORT INFORMATION

This product is not classified as dangerous to transport.

	ADR/RID	IMDG/IMO
14.1 UN number	Not relevant	Not relevant
14.2 UN proper shipping name	Not relevant	Not relevant
14.3 Transport hazard class(es)	Not relevant	Not relevant
14.4 Packing group	Not relevant	Not relevant
14.5 Environmental hazards – MP EmS:	No Not relevant	No Not relevant

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Other informations	LQ: - Tunnel: -	LQ: - Tunnel: -
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14.6 Special precautions for user:

Not relevant.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

Not relevant.

SECTION 15. REGULATORY INFORMATION

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

Sources:

Pressure Equipment (Amendment) Regulations 2011. Chemicals (Hazard Information and Packaging for Supply) Regulations 2009. Control of Substances Hazardous to Health Regulations 2002 (as amended). Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997. Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (as amended). Personal Protective Equipment Regulations 2002. Personal Protective Equipment at Work Regulations 1992. Hazardous Waste (England and Wales) Regulations 2005(as amended). EC regulation 1907/2006 (REACH) Directive 2000/532/EC. Seveso directive: 96/82/EC. EU 830/2015. REACH/CLP 1272/2008. REACH 1907/2006.

Additional information: For professional use only.

15.2 Chemical safety assessment:

Chemical safety assessments have not been performed for this product.

SECTION 16. OTHER INFORMATION

Full text of H-phrases as mentioned in section 3:

H302 Harmful if swallowed.

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

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H360FD May damage fertility. May damage the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

Additional information:

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Validated by:

SRS

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