

Material Safety Data Sheet



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1. Identification of substance

Product details

- **Trade name:** Buffer DE-B
- **MSDS No.:** BDE-B

2. Composition/Data on components

Chemical characterization

- **Description:** Liquid (Proprietary Compound Mixture)
- **Dangerous components:**

50-01-1 guanidinium chloride 25-50%

67-63-0 propan-2-ol 25-50%

3. Hazards identification

- **Hazard description:** Harmful
- **Information pertaining to particular dangers for man and environment:**

Flammable

Harmful if swallowed

Irritating to eyes and skin

- **Classification system:** The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **NFPA ratings (scale 0-4):**

Health = 3

Fire = 3

Reactivity = 0

- **WHMIS-ratings (scale 0-4):**

Health = 3

Fire = 3

Reactivity = 0

4. First aid measures

- **After inhalation:** Supply fresh air. Contact a physician if symptoms appear or persist.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse affected eye opened for several minutes under running water. Consult a physician.
- **After swallowing:** Immediately seek medical advice/assistance.

5. Fire fighting measures

- **Suitable extinguishing agents:** CO₂, extinguishing powder or water spray. Fight

larger fires with water spray or alcohol resistant foam.

- **For safety reasons unsuitable extinguishing agents:** Water with full jetR
- **Protective equipment:** Do not inhale explosion gases or combustion gases.

6. Accidental release measures

- **Person-related safety precautions:** Ensure adequate ventilation
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

7. Handling and storage

Handling

- **Information for safe handling:** Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

- **Information about protection against explosions and fires:** No special measures required.

Storage

- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Do not store together with acids.
- **Further information about storage conditions:** Keep receptacle tightly sealed.

8. Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **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.

67-63-0 propan-2-ol

- **ACGIH TLV Short-term value:** (500) ppm
- **Long-term value:** (400)ppm
- **NIOSH REL Short-term value:** 1225mg/m³, 500ppm
- **Long-term value:** 980 mg/m³, 400ppm
- **OSHA PEL:** 980 mg/m³, 400ppm

Personal protective equipment

- **General protective and hygienic measures:** Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- **Breathing equipment:** Not required.
- **Protection of hands:** Protective gloves
- **Eye protection:** Tightly sealed goggles

9. Physical and chemical properties

- **Form:** Fluid
- **Color:** Colorless
- **Odor:** Characteristic

Change in condition

- **Melting point/melting range:** Undetermined.
- **Boiling point/boiling range:** Undetermined.
- **Flash point:** 21-55°C
- **Auto ignition:** Product is not self-igniting
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixture are possible
- **Explosion limits:**

Lower: 20. Vol %

Upper: 12.0Vol%

- **Vapor pressure at 20°C:** 43 hPa
- **Density at 20°C:** 1.05g/cm³
- **Solubility in water:** Fully miscible.
- **pH value at 20°C (68°F):** 7.0

10. Stability and reactivity

- **Thermal decomposition/conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions:** Reacts with acids, alkalis and oxidizing agents.
- **Dangerous products of decomposition:** Danger of toxic pyrolysis products.

11. Toxicological information

Acute toxicity

Primary irritant effect

- **On the skin:** Irritant to skin and mucous membranes.
- **In the eyes:** Irritating effect
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **The product shows the following dangers according to internally approved calculation methods for preparations:**

Harmful

Irritating

12. Ecological information

General notes

- **Water Hazard Class 2 (Self-assessment):** Hazardous for water.

Do not allow product to reach ground water, water course or sewage system.

13. Disposal considerations

- **Product recommendation:** Must not be disposed of 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 agent:** Water, if necessary with cleansing agents.

14. Transport information

DOT regulations

- **Hazard class:** -3

Identification Number: UN1219

- **Packing group:** II
- **Proper shipping name (technical name):**

ISOPROPANOL (ISOPROPYL ALCOHOL) SOLUTION

- **Label:** 3

Land transport ADR/RID (cross-border)

- **ADR/RID class:** - 3 Flammable liquids
- **Danger code (Kemler):** 33
- **UN-Number:** 1219
- **Packing group:** II
- **Description of goods:** 1219 Isopropanol (Isopropyl alcohol) solution

Maritime transport IMDG

- **IMDG Class:** --3
- **UN-Number:** 1219
- **Label:** 3
- **Packing group:** II
- **EMS Number:** F-E, S-D
- **Marine pollutant:** No
- **Proper shipping name (technical name):** ISOPROPANOL (ISOPROPYL ALCOHOL) SOLUTION

Air transport ICAO-TI and IATA-DGR

- **ICAO/IATA Class:** 3

15. Regulations

- **UN-Number:** 1219
- **Label:** 3
- **Packing group:** II
- **Proper shipping name (technical name):** ISOPROPANOL (ISOPROPYL ALCOHOL) SOLUTION
- **TSCA (Toxic Substances Control Act):** All ingredients are listed.

Proposition 65

- **Chemicals known to cause cancer:** None of the ingredients is listed.
- **Chemicals known to cause reproductive toxicity:** None of the ingredients is listed.
- **Product related hazard information:** The product has been classified and marked in accordance with directives on hazardous materials.
- **Hazard symbols:** Harmful
- **Hazard-determining components of labeling:** Guanidinium thiocyanate
- **Risk phrases:**

Harmful by inhalation, in contact with skin and if swallowed.

Contact with acids liberates very toxic gas.

- **Safety phrases:** Keep away from food, drink and animal feed.

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

Wear suitable protective clothing.

If swallowed, seek medical advice immediately and show this container or label.

National regulations

- **Technical instructions (air):**

Class Share in %

III 2.5-50

Water hazard class

- **Water Hazard Class 2 (Self-assessment):** Hazardous for water.

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.