

Material Safety Data Sheet



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1. Identification of substance

Product details

- **Trade name:** Buffer S3
- **MSDS No.:** BS3

2. Composition/Data on components

Chemical characterization

- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:**
50-01-1 guanidinium thiocyanate 25-50%
64-17-5 ethanol 10-25%

3. Hazards identification

- **Hazard description:** Irritant, flammable.
- **Information pertaining to particular dangers for man and environment:** Irritating to eyes and skin. Flammable.
- **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 = 2
Fire = 2
Reactivity = 0
- **WHMIS-ratings (scale 0-4):**
Health = 2
Fire = 2
Reactivity = 0

4. First aid measures

- **After inhalation:** Supply fresh air. Consult a physician if symptoms appear/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.
- **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 product to reach sewage system or any water course.
- **Measures for cleaning/collecting:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7. Handling and storage

Handling

- **Information for safe handling:** Keep receptacles tightly sealed.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.

Storage

- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **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:**

CAS No. Designation of material % Type Value Unit

64-17-5 ethanol

ACGIH TLV short-term Value: 15ppm

Long-term Value: 10 ppm

NIOSH REL short-term Value: 37mg/m³, 15ppm

Long-term Value: 25mg/m³, 10ppm

OSHA PEL 25mg/m³, 10ppm

Personal protective equipment

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work.

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

9. Physical and chemical properties

- **Form:** Fluid
- **Color:** According to product specification
- **Odor:** Characteristic

Change in condition

- **Melting point/melting range:** Undetermined.
- **Boiling point/boiling range:** Undetermined.
- **Flash point:** 21-55°C (70-131°F)
- **Ignition temperature:** 425°C (797°F)
- **Auto-ignition:** Product is not self-igniting.

- **Danger of explosion:** Product does not present an explosion hazard. However, formation of explosive air/vapor mixtures are possible.
- **Explosion limits:**

Lower: 2.0 Vol %

Upper: 12.0 Vol %

- **Vapor pressure at 20°C (68°F):** 43 hPa
- **Density at 20°C (68°F):** 1.14 g/cm³
- **Solubility in water:** Fully soluble.
- **pH value at 20°C (68°F):** 4.3

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.

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.

Danger to drinking water if even small quantities leak into the ground.

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:** --

Land transport ADR/RID (cross-border)

- **ADR/RID class:** --

Maritime transport IMDG

- **IMDG Class:** --
- **Marine pollutant:** No

Air transport ICAO-TI and IATA-DGR

- **ICAO/IATA Class:** -15

15. Regulations

- **TSCA (Toxic Substances Control Act):** All ingredients are listed DR

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.
- **Risk phrases:** Flammable.

National regulations

- **Technical instructions (air):**

Class Share in %

III 2.5-10

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.