

Material Safety Data Sheet



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1. Identification of substance

Product details

- **Trade name:** Buffer S3K
- **MSDS No.:** BS3K

2. Composition/Data on components

Chemical characterization

- **Description:** Liquid (Proprietary Compound Mixture)
- **Dangerous components:**
 - 50-01-1 guanidinium chloride 25-50%
 - 64-19-7 acetic acid 10-25%

3. Hazards identification

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

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 = 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 opened eye 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.
- **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.

CAS No.	Destination of material	%	Type	Value	Unit
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64-19-7	acetic acid				
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ACGIH TLV Short-term Value: 15 ppm

Long-term Value: 10 ppm

NOISH REL Short-term Value: 37mg/m³ 15 ppm

Long-term Value: 25mg/m³ 10 ppm

OSHA PEL: 25mg/m³ 10 ppm

Additional information: The lists that were valid during the creation were used as basis.

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:** 22-55°C
- **Ignition temperature:** 425°C
- **Auto-ignition:** Product is not self-igniting.
- **Danger of explosion:** Product is not explosive, formation of explosive air/vapor mixtures are possible.

Explosive Limits

- **Lower:** 2.0 Vol %
- **Upper:** 12.0 Vol %
- **Vapor Pressure at 20°C:** 43 hPa
- **Density at 20°C:** 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 reaction:** 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:** Strong acidic irritant with the danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:** The product shows the following dangers according to internally approved calculation methods for preparations: Harmful.

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:** --8
- **Identification Number:** UN2790

- **Packing group:** III
- **Proper shipping name:** Acetic acid solution
- **Label:** 8

Land transport ADR/RID (cross-border)

- **ADR/RID class:** --8 corrosive substances
- **Danger Code (Kemler):** 80
- **UN-number:** 2790
- **Label:** 8
- **Packing group:** III
- **Description of goods:** 2790 acetic acid solution more than 10 % but less than 50 % acid by weight

Maritime transport IMDG

- **IMDG Class:** --8
- **UN-number:** 2790
- **Label:** 8
- **Packing group:** III
- **Marine pollutant:** No
- **Proper shipping name:** Acetic acid solution
- **Air transport ICAO-TI and IATA-DGR**
- **ICAO/IATA Class:** 8
- **UN/IDnumber:** 2790
- **Label:** 8
- **Packing group:** III
- **Proper shipping name:** Acetic acid solution

15. Regulations

Sara

- **Section 355 (extremely hazardous substances):** None of the ingredient is listed.
- **Section 313 (Specific toxic chemical listings):** None of the ingredients is listed.
- **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 foodstuffs.

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 %

II 10-25

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.