Revision: 05/12/2015

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and

GHS

Effective date: 11/20/2014

CITRANOX

1 Identification of the Substance/mixture and of the Company/Undertaking

1.1 Product identifier Trade name: <u>CITRANOX</u> Application of the substance (th

Application of the substance / the preparation: Cleaning material/ Detergent

- **1.2 Relevant identified uses of the substance or mixture and uses advised against:** No additional information available.
- 1.3 Details of the supplier of the Safety Data Sheet Manufacturer/Supplier:

Alconox, Inc. 30 Glenn St., Suite 309 White Plains, NY 10603 Phone: 914-948-4040



Further information obtainable from: Product Safety Department

1.4 Emergency telephone number: ChemTel Inc.: (800)255-3924, +1 (813)248-0585

2 Hazards Identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008:

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H412.



Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008:

The product is classified and labelled according to the CLP regulation. **Hazard pictograms:**



Signal word: Warning

Hazard-determining components of labelling:

Citric Acid

Hazard statements:

The following Hazard Statements are applicable only to the EU regulations and not the US GHSregulation: H412. H319: Causes serious eye irritation.

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Precautionary statements:

P280: Wear protective gloves / eye protection.

P264: Wash skin thoroughly after handling.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

Other Hazard description:

WHMIS-classification and symbols:

D2B - Toxic material causing other toxic effects

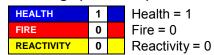


2.3 Other hazards

NFPA ratings (scale 0 - 4)

Health = 1 Fire = 0 Reactivity = 0

HMIS-ratings (scale 0 - 4)



Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable.

3 Composition/Information on Ingredients

3.2 Chemical characterization: Mixture

Description: Hazardous ingredients of mixture listed below.

| Identifying Nos. | Description | Wt. % |
|------------------------------------|---------------------------|-----------|
| CAS: 77-92-9 EINECS: 201-069-1 | Citric acid | 10 - 25% |
| CAS: 79-14-1 EINECS: 201-180-5 | Glycollic acid | 2.5 - 10% |
| CAS: 102-71-6 EINECS: 203-049-8 | 2,2',2"-nitrilotriethanol | 2.5 - 10% |

Additional information: For the wording of the listed risk phrases refer to section 16.

4 First Aid Measures

4.1 Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

After inhalation:

Supply fresh air; consult doctor in case of complaints.

Provide oxygen treatment if affected person has difficulty breathing.

In case of irregular breathing or respiratory arrest provide artificial respiration.

After skin contact:

Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.

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After eye contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing:

Do not induce vomiting; call for medical help immediately.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

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

Caustic effect on skin and mucous membranes.

Gastric or intestinal disorders.

Hazards:

Danger of gastric perforation. Danger of severe eye injury.

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

No additional information available.

5 Firefighting Measures

5.1 Extinguishing media:

Suitable extinguishing agents:

Use fire extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from the substance or mixture: No additional information available.

5.3 Advice for firefighters:

Protective equipment:

Wear self-contained respiratory protective device. Wear fully protective suit.

6 Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Use respiratory protective device against the effects of fumes/dust/aerosol. Wear protective equipment. Keep unprotected persons away. Product forms slippery surface when combined with water.

6.2 Environmental precautions:

Dilute with plenty of water.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Pick up mechanically. Clean the affected area carefully; suitable cleaners are: Warm water Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

6.4 Reference to other sections:

See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information

7 Handling and Storage

7.1 Precautions for safe handling:

Use only in well ventilated areas. Prevent formation of aerosols. Information about fire - and explosion protection: No special measures required.

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7.2 Conditions for safe storage, including any incompatibilities: Storage:

Requirements to be met by storerooms and receptacles:

Avoid storage near extreme heat, ignition sources or open flame.

Information about storage in one common storage facility: Not required.

Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

7.3 Specific end use(s): No additional information available.

8 Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

| 102-71-6 2 | 2,2',2"-nitrilotriethanol |
|-------------|--|
| TLV (USA) | Long-term value: 5 mg/m ³ |
| EL (Canada) | Long-term value: 5 mg/m ³ |
| EV (Canada) | Long-term value: 3,1 mg/m ³ , 0,5 ppm |

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

8.2 Exposure controls:

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. Avoid contact with the eyes and skin.

Respiratory protection:

Not required under normal conditions of use.

For spills, respiratory protection may be advisable.

Use suitable respiratory protective device when high concentrations are present.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product. Selection of the glove material should be based on the penetration time, rates of diffusion and the degradation of the glove material.

Material of gloves:

The selection of a suitable gloves does not only depend on the material, but also on the quality, and varies from manufacturer to manufacturer.

Penetration time of glove material:

The exact break through time has to be determined by the manufacturer of the protective gloves. DO NOT exceed the breakthrough time set by the Manufacturer.

For long term contact, gloves made of the following materials are considered suitable:

Butyl rubber, BR Nitrile rubber, NBR Natural rubber (NR) Neoprene gloves

Eye protection:

Safety glasses

Body protection: Protective work clothing

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| 9 Physical and Chemical Properties | | | | |
|---|---|--|--|--|
| 9.1 Information on basic physical and chemical properties: | | | | |
| General Information: Appearance: Form: Color: | Liquid Yellowish | | | |
| Odor: Odor threshold: pH-value at 20 °C: | Odorless Not determined. 2.5 | | | |
| Change in condition: Melting point/Melting range: Boiling point/Boiling range: | Not determined. 218 °F / 103 °C | | | |
| Flash point: | Not applicable. | | | |
| Flammability (solid, gaseous): Ignition temperature: Decomposition temperature: Self-igniting: Danger of explosion: | Not applicable. Not determined. Not determined. Product is not self-igniting. Product does not present an explosion hazard. | | | |
| Explosion limits: Lower: Upper: | Not determined. Not determined. | | | |
| Vapor pressure at 20 °C: | 23 hPa | | | |
| Density at 20 °C: | 1.12 g/cm ³ | | | |
| Relative density: | Not determined. | | | |
| Vapor density: | Not applicable. | | | |
| Evaporation rate: | Not applicable. | | | |
| Solubility in / Miscibility with water: Segregation coefficient (n-octanol/water): Viscosity: | Fully miscible. Not determined. | | | |
| Dynamic: Kinematic: Solvent content: | Not determined. Not determined. | | | |
| Organic solvents: Solids content: 9.2 Other information: | <0 % <40 % No additional information available. | | | |
| 10 Stability and Poactivity | | | | |

10 Stability and Reactivity

10.1 Reactivity:

10.2 Chemical stability:

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Can decompose slowly with localized heating above 150°C.

10.3 Possibility of hazardous reactions: Reacts with acids, alkalis and oxidizing agents.

10.4 Conditions to avoid: No additional information available.

10.5 Incompatible materials: No additional information available.

10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide.

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11 Toxicological Information

11.1 Information on toxicological effects:

Acute toxicity:

LD/LC50 values relevant for classification:

79-14-1 glycollic acid

Oral LD₅₀ 1950 mg/kg (rat)

Primary irritant effect:

On the skin: Strong caustic effect on skin and mucous membranes.

On the eye: Strong caustic effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EUClassification Guidelines for Preparations as issued in the latest version:

Harmful

Irritant

12 Ecological Information

12.1 Toxicity:

Aquatic toxicity: No additional information available.

12.2 Persistence and degradability: No additional information available.

- 12.3 Bioaccumulative potential: Not worth-mentioning accumulating in organisms.
- 12.4 Mobility in soil: No additional information available.
 - Ecotoxical effects:

Remark: Harmful to fish

Additional ecological information:

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

12.5 Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects: No additional information available.

13 Disposal Considerations

13.1 Waste treatment methods:

Recommendation:

Smaller quantities can be disposed of with household waste.

Can be disposed of with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

The surfactant used in this product complies with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agents: Water, together with cleansing agents, if necessary.

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14 Transport Information

| Not Regulated | | |
|---|--|--|
| Not Regulated | | |
| Not Regulated - | | |
| Not Regulated | | |
| No | | |
| Not applicable. | | |
| 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable. | | |
| Not Regulated | | |
| | | |

15 Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture: United States (USA):

SARA:

Section 355 (extremely hazardous substances): None of the ingredient is listed. Section 313 (Specific toxic chemical listings): None of the ingredient is listed. TSCA (Toxic Substances Control Act): All ingredients are listed.

Proposition 65 (California):

Chemicals known to cause cancer: None of the ingredient is listed.

Chemicals known to cause reproductive toxicity for females: None of the ingredient is listed. Chemicals known to cause reproductive toxicity for males: None of the ingredient is listed. Chemicals known to cause developmental toxicity: None of the ingredient is listed.

Carcinogenic Categories:

EPA (Environmental Protection Agency): None of the ingredient is listed. TLV (Threshold Limit Value established by ACGIH): None of the ingredient is listed. NIOSH-Ca (National Institute for Occupational Safety and Health): None of the ingredient is listed. OSHA-Ca (Occupational Safety & Health Administration): None of the ingredient is listed.

Canadá:

Canadian Domestic Substances List (DSL): All ingredients are listed. Canadian Ingredient Disclosure list (limit 0.1%): None of the ingredient is listed.

Canadian Ingredient Disclosure list (limit 1%):

6834-92-0 Disodium Metasilicate

7722-88-5 Tetrasodium Pyrophosphate

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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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. **Relevant phrases:**

H319: Causes serious eye irritation.

Abbreviations and Acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
IMDG: International Maritime Code for Dangerous Goods.
DOT: US Department of Transportation.
IATA: International Air Transport Association.
GHS: Globally Harmonized System of Classification and Labelling of Chemicals.
ACGIH: American Conference of Governmental Industrial Hygienists.
NFPA: National Fire Protection Association (USA).
HMIS: Hazardous Materials Identification System (USA).
WHMIS: Work-place Hazardous Materials Information System (Canada).
VOC: Volatile Organic Compounds (USA, EU).
LC50: Lethal concentration, 50 percent.
LD50: Lethal dose, 50 percent.

SDS Created by:

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