

Safety Data Sheet
According to the (US) Hazard Communication Standard (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

| | | |
|----------------------------|--|---|
| Product Name | Sodium Bromate, Reagent Grade | |
| NCL Catalog Number | S-32X | |
| Product Description | Laboratory chemical, for making CISA buffer for Chloride ISE. | |
| Manufacturer | EMD Chemicals Inc. | PO Box 70, 480 Democrat Road Gibbstown, NJ 08027 |
| Supplier | NCL of Wisconsin, Inc. Telephone: 1-800-648-7836 Email: nclabs@nclabs.com | PO Box 8, Birnamwood, WI 54414 Fax: 715-449-2454 Emergency Contact: 1-800-424-9300 (Chemtree) |

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification

| | |
|--------------------------------|----------------------------|
| Oxidizing Solids | Category 2 |
| Acute Toxicity | Oral Category 4 |
| Skin Irritation | Category 2 |
| Eye Irritation | Category 2A |
| Specific Target Organ Toxicity | Single Exposure Category 3 |



Signal Word

Danger

Hazard Statements

| | |
|------|-----------------------------------|
| H272 | May intensify fire; oxidizer. |
| H302 | Harmful if swallowed. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H335 | May cause respiratory irritation. |

Precautionary Statements

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| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P220 | Keep away from clothing and other combustible materials. |
| P261 | Avoid breathing dust. |
| P264 | Wash exposed skin thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. |
| P330 | Rinse mouth. |
| P302+P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P322+P313 | If skin irritation occurs: Get medical advice/attention. |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P312 | Call a POISON CENTER or doctor if you feel unwell. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |
| P370+P378 | In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container to comply with local, state and federal regulations. |

Other Hazards Not Contributing to the Classification

None under normal conditions.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Formula NaBrO₃
Synonym Bromic Acid, Sodium Salt

Substance

| Name | CAS # | Approximate % |
|----------------|-----------|---------------|
| Sodium Bromate | 7789-38-0 | 100 |

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General First Aid Measures Never give anything by mouth to an unconscious person. Seek medical advice if you feel unwell.

If Inhaled Remove person to fresh air and keep comfortable for breathing. Allow victim to rest. Contact a POISON CENTER or doctor if you feel unwell.

In Case of Skin Contact Remove all contaminated clothing. Rinse skin with water/shower. Contact a POISON CENTER or doctor if you feel unwell.

In Case of Eye Contact Rinse carefully with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Contact a POISON CENTER or doctor if you feel unwell.

If Swallowed Rinse mouth. Do NOT induce vomiting. Contact a POISON CENTER or doctor if you feel unwell.

Most Important Symptoms/Effects Acute and Delayed

No additional information available.

Indication of Immediate Medical Attention and Special Treatment Needed

Seek medical attention if you feel unwell.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media Foam. Dry powder. Sand. Carbon dioxide. Water spray.

Unsuitable Extinguishing Media Do not use high pressure water stream.

Special Hazards Arising from the Chemical

May be combustible at high temperatures. Products of combustion include some metallic oxides.

Special Protective Actions for Fire-Fighters

Wear self-contained breathing apparatus and protective clothing. Keep exposed containers cool with water spray.

Other Information

May intensify fire; oxidizer. Use water spray to cool unopened containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions Use personal protective equipment (see section 8). Evacuate area of non-essential personnel. Eliminate ignition sources. Ventilate area.

Environmental Precautions Prevent entry to surface and ground waters.

Methods and Materials for Containment and Cleaning Up Use appropriate tools to put the spilled solid in a convenient waste disposal container. Stop leak if without risk. Do not get water inside container. Avoid contact with combustible materials. Eliminate all ignition sources. Store away from other materials. Ensure compliance with local, state and federal regulations.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with eyes and skin. Avoid breathing dust. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of dust.

**Conditions for Safe Storage
Including any Incompatibilities**

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Store away from acids, alkalies, reducing agents, and combustible materials.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

No data available

Appropriate Engineering Controls

Material should be handled or transferred in a fume hood or with equivalent ventilation. Maintain eye-wash fountain and quick-drench facilities in work area.

Individual Protection Measures

Eye/Face Protection

Avoid all unnecessary exposure.
Use chemical safety goggles and/or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material.

Skin Protection

Wear protective gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.

Respiratory Protection

Wear appropriate mask.

Other Information

Do not eat, drink or smoke when using this product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|------------------|
| Physical State | Solid, crystals |
| Color | White |
| Molecular Weight | 150.9 g/mol |
| Odor | Odorless |
| Odor Threshold | Not determined |
| pH | Not determined |
| Melting Point/Freezing Point | 380.9°C |
| Initial Boiling Point and Boiling Range | Not determined |
| Flash Point | Not determined |
| Evaporation Rate | Not determined |
| Flammability (Solid, Gas) | Not determined |
| Upper/Lower Flammability/Explosive Limits | Not determined |
| Vapor Pressure | Not determined |
| Vapor Density | Not determined |
| Relative Density | Not determined |
| Solubility | Soluble in water |
| Partition Coefficient: n-octanol/water | Not determined |
| Auto-Ignition Temperature | Not determined |
| Decomposition Temperature | Not determined |
| Viscosity | Not determined |

SECTION 10: STABILITY AND REACTIVITY

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|---|---|
| Reactivity | No data available |
| Chemical Stability | No data available |
| Possibility of Hazardous Reactions | No data available |
| Conditions to Avoid | No data available |
| Incompatible Materials | Reducing agents, organic materials, metals, and acids |
| Hazardous Decomposition Products | Bromine |

SECTION 11: TOXICOLOGICAL INFORMATION

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|-----------------------|-----------------------|
| Acute Toxicity | Harmful if swallowed. |
|-----------------------|-----------------------|

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|--|-----------------------------------|
| Skin Corrosion/Irritation | Causes skin irritation. |
| Serious Eye Damage/Irritation | Causes serious eye irritation. |
| Respiratory or Skin Sensitization | Not classified. |
| Germ Cell Mutagenicity | Not classified |
| Carcinogenicity | Not classified |
| Reproductive Toxicity | Not classified |
| Specific Target Organ Toxicity (Single Exposure) | May cause respiratory irritation. |
| Specific Target Organ Toxicity (Repeated Exposure) | Not classified |
| Aspiration Hazard | Not classified |
| Potential Adverse Human Health Effects and Symptoms | No data available |
| Other Information | Not available |

SECTION 12: ECOLOGICAL INFORMATION

| | |
|--------------------------------------|-----------------------------------|
| Toxicity – Water | Not classified |
| Persistence and Degradability | Not applicable |
| Bioaccumulative Potential | Not applicable |
| Mobility in Soil | Not applicable |
| Other Adverse Effects | Avoid release to the environment. |

SECTION 13: DISPOSAL CONSIDERATIONS

Methods of Disposal

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|---------------------------------|---|
| Disposal Recommendations | Dispose of contents/containers in accordance with local, state and federal regulations. |
| Other Information | Avoid release to the surrounding environment. |

SECTION 14: TRANSPORT INFORMATION

| | |
|-----------------------------------|----------------|
| UN Number | 1494 |
| UN Shipping Name | Sodium Bromate |
| Transport Hazard Class(es) | 5.1 |
| Packing Group | II |
| Environmental Hazards | None |
| Transport in Bulk | Not applicable |
| Other Precautions | Not applicable |

SECTION 15: REGULATORY INFORMATION

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| Sodium Bromate (7789-38-0) |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory |

SECTION 16: OTHER INFORMATION

Revision Date: 04/10/2015

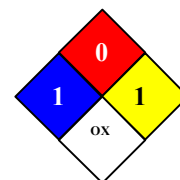
NFPA Hazards

Health Hazard 1: Exposure would cause irritation with only minor residual injury.

Fire Hazard 0: Materials that will not burn.

Reactivity/Instability 1: Normally stable, but can become unstable at elevated temperatures and pressures.

Special Hazard OX: Strong Oxidizer



HMIS III Rating

Health 1: Irritation or minor reversible injury possible.

Flammability 0: Materials that will not burn.

Physical Hazard 1: Materials that are normally stable but can become unstable at high temperatures and pressure.

Personal Protection C

| S-32X | |
|---------------------|---|
| Health | 1 |
| Flammability | 0 |
| Physical Hazard | 1 |
| Personal Protection | C |

The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, NCL of Wisconsin, Inc. makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for their conditions of use. Accordingly, NCL of Wisconsin, Inc. will not be responsible for damages of any kind resulting from the use of or reliance upon such information.

END OF SAFETY DATA SHEET