1 Identification

- Product identifier
  - Trade name: Sodium nitrite
  - Article number: 142445
  - CAS Number: 7632-00-0
  - EC number: 231-555-9
  - Index number: 007-010-00-4

- Application of the substance / the mixture Laboratory chemicals for research and development

- Details of the supplier of the safety data sheet
  - Manufacturer/Supplier: BeanTown Chemical
    9 Sagamore Park Road
    Hudson, NH 03051
    USA

    Phone: (603) 402-2234
    Fax: (603) 402-9713
    Email: technical@beantownchem.com
    www.beantownchem.com

- Information department: Technical Support Department
  - Emergency telephone number:
    During normal operating hours, please call (603) 402-2234
    After hours, please call Chemtrec at (800) 424-9300

2 Hazard(s) identification

- Classification of the substance or mixture
  - GHS03 Flame over circle
  - Ox. Sol. 2 H272 May intensify fire; oxidizer.

- GHS06 Skull and crossbones

  Acute Tox. 3 H301 Toxic if swallowed.
  Acute Tox. 1 H330 Fatal if inhaled.

- Label elements
  - GHS label elements The substance is classified and labeled according to the Globally Harmonized System (GHS).
  - Hazard pictograms

    GHS03  GHS06

- Signal word Danger

(Contd. on page 2)
Trade name: Sodium nitrite

- Hazard-determining components of labeling:
  sodium nitrite
- Hazard statements
  May intensify fire; oxidizer.
  Toxic if swallowed.
  Fatal if inhaled.
- Precautionary statements
  If medical advice is needed, have product container or label at hand.
  Keep out of reach of children.
  Read label before use.
  Take any precaution to avoid mixing with combustibles.
  Keep away from heat.
  If swallowed: Immediately call a poison center/doctor.
  Specific treatment is urgent (see on this label).
  Store locked up.
  Dispose of contents/container in accordance with local/regional/national/international regulations.
- Other hazards
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description
  7632-00-0 sodium nitrite
- Identification number(s)
  - EC number: 231-555-9
  - Index number: 007-010-00-4

4 First-aid measures

- Description of first aid measures
- General information:
  Immediately remove any clothing soiled by the product.
  Remove breathing apparatus only after contaminated clothing have been completely removed.
  In case of irregular breathing or respiratory arrest provide artificial respiration.
- After inhalation:
  Supply fresh air or oxygen; call for doctor.
  In case of unconsciousness place patient stably in side position for transportation.
- After skin contact:
  Immediately wash with water and soap and rinse thoroughly.
- After eye contact:
  Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing:
  Do not induce vomiting; immediately call for medical help.
- Information for doctor:
  - Most important symptoms and effects, both acute and delayed: No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed
    No further relevant information available.
5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:
  CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions:
  Do not allow product to reach sewage system or any water course.
  Inform respective authorities in case of seepage into water course or sewage system.
- Methods and material for containment and cleaning up:
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.
- 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

- Handling:
  - Precautions for safe handling
    Thorough dedusting.
    Ensure good ventilation/exhaustion at the workplace.
    Open and handle receptacle with care.
  - Information about protection against explosions and fires:
    Protect from heat.
    Keep respiratory protective device available.
- Conditions for safe storage, including any incompatibilities
- 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.
    Protect from heat and direct sunlight.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems:
  Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute
- Control parameters
- Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
Trade name: Sodium nitrite

- 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.
    Store protective clothing separately.
- Breathing equipment:
  In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- Protection of hands:
  Protective gloves
  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. 
  Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
  Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- Material of gloves
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- Penetration time of glove material
  The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Eye protection: Not required.

9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
  - Appearance:
    Form: Solid
    Color: Yellowish
  - Odor:
    Odor threshold: Characteristic
    Odour threshold: Not determined.
  - pH-value: Not applicable.

- Change in condition
  Melting point/Melting range: 271 °C (520 °F)
  Boiling point/Boiling range: 320 °C (608 °F)

- Flash point: Not applicable.

- Flammability (solid, gaseous):
  Contact with combustible material may cause fire.

- Ignition temperature:
  Decomposition temperature: Not determined.
  Auto igniting: Not determined.
  Danger of explosion: Not determined.

- Explosion limits:
  Lower: Not determined.
  Upper: Not determined.
**Trade name: Sodium nitrite**

- **Vapor pressure:** Not applicable.
- **Density at 20 °C (68 °F):** 2.168 g/cm³ (18.092 lbs/gal)
- **Relative density** Not determined.
- **Vapour density** Not applicable.
- **Evaporation rate** Not applicable.

- **Solubility in / Miscibility with Water at 20 °C (68 °F):** 82 g/l
- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**
  - **Dynamic:** Not applicable.
  - **Kinematic:** Not applicable.
  - **Organic solvents:** 0.0 %

- **Solids content:** 100.0 %
- **Other information** No further relevant information available.

**10 Stability and reactivity**

- **Reactivity**
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
  - **Possibility of hazardous reactions** No dangerous reactions known.
  - **Conditions to avoid** No further relevant information available.
  - **Incompatible materials:** No further relevant information available.
  - **Hazardous decomposition products:** No dangerous decomposition products known.

**11 Toxicological information**

- **Information on toxicological effects**
- **Acute toxicity:**
  - **LD/LC50 values that are relevant for classification:**
    - 7632-00-0 sodium nitrite
      - Oral LD50: 85 mg/kg (rat)

- **Primary irritant effect:**
  - **on the skin:** No irritant effect.
  - **on the eye:** No irritating effect.
  - **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**
- **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)**
    - Substance is not listed.
  - **NTP (National Toxicology Program)**
    - Substance is not listed.
Trade name: Sodium nitrite

12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Ecotoxicity:
- Remark: Very toxic for fish
- Additional ecological information:
- General notes: Also poisonous for fish and plankton in water bodies. Very toxic for aquatic organisms.
- VPT and vPvB assessment:
  - PBT: Not applicable.
  - vPvB: Not applicable.
- Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
- Recommendation:
  Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number: UN1500
- DOT, IMDG, IATA: UN1500
- UN proper shipping name: Sodium nitrite
- DOT: Sodium nitrite
- IMDG, IATA: SODIUM NITRITE
- Transport hazard class(es):
- DOT, IMDG, IATA: 5.1 Oxidizing substances
- Class: 5.1 Oxidizing substances
- Label: 5.1+6.1
- Packing group:
- DOT, IMDG, IATA: III
- Environmental hazards:
- Marine pollutant: No
- Special precautions for user:
  Warning: Oxidizing substances

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Trade name: Sodium nitrite

- Danger code (Kemler): 56
- EMS Number: F-A,S-Q
- Segregation groups: Nitrates and their mixtures

- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.
- DOT
  - Quantity limitations: On passenger aircraft/rail: 25 kg
    On cargo aircraft only: 100 kg
  
- IMDG
  - Limited quantities (LQ): 5 kg
  
  - Excepted quantities (EQ)
    Code: E1
    Maximum net quantity per inner packaging: 30 g
    Maximum net quantity per outer packaging: 1000 g

- UN "Model Regulation": UN1500, Sodium nitrite, ENVIRONMENTALLY HAZARDOUS, 5.1 (6.1), III

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

  - Section 355 (extremely hazardous substances):
    Substance is not listed.

  - Section 313 (Specific toxic chemical listings):
    Substance is listed.

  - TSCA (Toxic Substances Control Act):
    Substance is listed.

  - Proposition 65

    - Chemicals known to cause cancer:
      Substance is not listed.

    - Chemicals known to cause reproductive toxicity for females:
      Substance is not listed.

    - Chemicals known to cause reproductive toxicity for males:
      Substance is not listed.

    - Chemicals known to cause developmental toxicity:
      Substance is not listed.

- Carcinogenic categories

  - EPA (Environmental Protection Agency)
    Substance is not listed.

  - TLV (Threshold Limit Value established by ACGIH)
    Substance is not listed.
Trade name: Sodium nitrite

- NIOSH-Ca (National Institute for Occupational Safety and Health)
  Substance is not listed.

- RTECS
  Substance is not listed.

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

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.

- NFPA ratings (scale 0-4)
  Health = 4
  Fire = 3
  Reactivity = 0
  The substance possesses oxidizing properties.

- HMIS ratings (scale 0-4)
  Health = 4
  Fire = 3
  Reactivity = 0

- Department issuing SDS: Technical Support Department
- Contact: Technical Support Department
- Date of preparation / last revision 03/04/2015 / -
- Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (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
  ACGIH: American Conference of Governmental Industrial Hygienists
  EINECS: European Inventory of Existing Commercial Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  Ox. Sol. 2: Oxidising Solids, Hazard Category 2
  Acute Tox. 3: Acute toxicity, Hazard Category 3
  Acute Tox. 1: Acute toxicity, Hazard Category 1