Sect

#### SAFETY DATA SHEET

## GENERAL STORAGE CODE GREEN

| tion 1 | Chemical Product and | Company | / Identification |
|--------|----------------------|---------|------------------|
|--------|----------------------|---------|------------------|

#### HOME SCIENCE TOOLS

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#### Page E1 of E2

#### CHEMTREC 24 Hour Emergency USA Phone Number (800) 424-9300 1 703-741-5500 (from anywhere in the world). For laboratory and industrial use only. Not for drug, food or household use.

Product NUTRIENT AGAR
Synonyms Not applicable

## Section 2 Hazards Identification

This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.

Signal word: Not classified Pictograms: Not classified Target organs: None known

GHS Classification: Not classified

GHS Label information: Hazard statement: Not classified Precautionary statement: Not classified

#### Supplemental information:

Agar is a dried hydrophilic colloidal substance obtained from various species of algae and, as such, presents a low hazard for normal laboratory handling. Dust may cause skin and eye irritation. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell.

#### Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

| Section 3 Composition / Info                                      | ormation on Ingredients                     |                            |   |  |
|---|---|----------------------------|---|--|
| Chemical Name   | CAS #                                       | %                          | EINECS                                      |  |
| Agar<br>Peptone, bacteriological<br>Beef extract, bacteriological | 9002-18-0<br>None assigned<br>None assigned | 62.50%<br>21.75%<br>13.05% | 232-658-1<br>None assigned<br>None assigned |  |
| Section 4 First Aid Measures                                      |   |                            |   |  |

INGESTION: Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: MAY CAUSE TRANSIENT IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

#### Section 5

unconscious person.

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire

**Fire Fighting Measures** 

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Dust dispersed in air is capable of creating a dust explosion when exposed to an ignition source. Avoid dispersion of dust in air.

#### Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

#### Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from ignition sources.

| Section 8        | Exposure Controls / Personal Protection |                  |                  |                  |  |  |  |
|------------------|---|------------------|------------------|------------------|--|--|--|
| Exposure Limits: | Chemical Name                           | ACGIH (TLV)      | OSHA (PEL)       | NIOSH (REL)      |  |  |  |
| Exposure Linits. | Agar                                    | None established | None established | None established |  |  |  |

**Engineering controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHAapproved respirator.

| Section 9<br>Appearance: Solid  |   |  |   |   |  |   |   |
|---|---|--|---|---|--|---|---|
| Annearance: Solid   | Physical & Chemica  | al Properties  |   |   |  |   |   |
| Odor: Characteristi<br>Odor threshold: D<br>pH: Data not availa   | c odor of cooked meat.<br>ata not available.<br>ble.<br><b>point:</b> Data not available<br>a not available   | Flammability (s<br>Explosion limit<br>Vapor pressure<br>Vapor density<br>Relative density  | te ( = 1): Data not a<br>solid/gas): Data not<br>ts: Lower / Upper: 1<br>e (mm Hg): Negligibl<br>(Air = 1): Data not av<br>Specific gravity): Data<br>Soluble in water.   | available.<br>Data not available<br>e<br>⁄ailable   | Auto-ignitie<br>Decompos<br>Viscosity:<br>Molecular f              |   | : Data not available<br>re: Data not available.<br>le.<br>e                 |
| Section 10  | Stability & Reactivit   | ty   |   |   |  |   |   |
| Chemical stability:<br>Conditions to avoi   | Stable<br>d: Excessive temperature  |  | us polymerization:<br>me and other source   |   |  |   |   |
| •   | rials: Strong oxidizers, a  |  |   |   |  |   |   |
| Hazardous decom   | position products: Oxid   | les of carbon.   |   |   |  |   |   |
| Section 11  | Toxicological Inform  | nation   |   |   |  |   |   |
| IARC: No compone<br>OSHA: No compone<br>Reproductive toxic<br>STOT-single expose<br>STOT-repeated exp   | It of this product present a<br>nt of this product present<br>ent of this product present<br>city: Data not available<br>sure: Data not available<br>posure: Data not available<br>: Data not available<br>fects:   | at levels greater than or<br>t at levels greater than or   | equal to 0.1% is ident  | ified as probable, po   | ssible or confir   | med human card                          | • •   |
| Ingestion: No speci<br>Skin: No specific ha<br>Eyes: Contact with<br><b>Signs and sympto</b><br>not available. Exerc  | ific hazard known.<br>azard known.<br>eyes may cause irritation<br><b>ms of exposure:</b> To the<br>cise appropriate procedur   | best of our knowledge th<br>es to minimize potential l   |   | and toxicological pro   | perties have no  | ot been thorough                        | ly investigated. Specific data  |
| Ingestion: No speci<br>Skin: No specific ha<br>Eyes: Contact with<br><b>Signs and sympto</b><br>not available. Exerc  | ific hazard known.<br>azard known.<br>eyes may cause irritation<br><b>ms of exposure:</b> To the<br>cise appropriate procedur<br><b>ation: RTECS #:</b> AW795   | best of our knowledge th<br>es to minimize potential l<br>0000 [Agar]  |   | and toxicological pro   | perties have no  | ot been thorough                        | ly investigated. Specific data  |
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| Ingestion: No spec<br>Skin: No specific hi<br>Eyes: Contact with<br>Signs and sympto<br>not available. Exer-<br>Additional informa<br>Section 12<br>Toxicity to fish: No<br>Toxicity to algae: No<br>Toxicity to algae: No<br>Other adverse effe<br>Section 13<br>These disposal guregulations may b<br>Section 14<br>UN/NA number:<br>Hazard class: No<br>Exceptions: No<br>Section 15   | ific hazard known.<br>azard known.<br>eyes may cause irritation<br><b>ms of exposure</b> : To the<br>cise appropriate procedurn<br><b>tion: RTECS #</b> : AW795<br><b>Ecological Informat</b><br>to data available<br><b>a and other aquatic inve</b><br>to data available<br><b>egradability:</b> No data ava<br>to data available<br><b>cts:</b> An environmental ha<br><b>Disposal Considera</b><br>uidelines are intended file<br>e different. Dispose of<br><b>Transport Informat</b><br>Not applicable<br>lot applicable<br><b>tapplicable</b><br><b>Regulatory Informa</b><br>ed to be listed if the CAS num | best of our knowledge th<br>es to minimize potential I<br>20000 [Agar]<br>tion<br>rtebrates: No data availa<br>ailable Bioaccumu<br>PBT and vi<br>azard cannot be excluded<br>ations<br>or the disposal of cata<br>in accordance with all<br>tion (US DOT / CANAE<br>Shipping name: N<br>Packing group: N<br>2016 ERG Guide #<br>tion                                | able<br><b>Native potential:</b> No<br><b>PyB assessment:</b> No<br><b>h</b> in the event of unpro-<br>log-size quantities of<br>local, state and fed<br><b>DA TDG)</b><br>lot Regulated<br>ot applicable<br>Not applicable   | data available<br>o data available<br>ofessional handling o<br>only. Federal regu<br>leral regulations of                         | r disposal.<br>ations may a<br>contract with                       | oply to empty c<br>a licensed che       | ontainer. State and/or loc<br>mical disposal agency.                        |

#### SAFETY DATA SHEET

#### Section 1 Chemical Product and Company Identification

#### HOME SCIENCE TOOLS

665 Carbon Street Billings, MT 59102 800-860-6272 www.homesciencetools.com

# Page E1 of E2 CHEMTREC 24 Hour Emergency USA

Phone Number (800) 424-9300 1 703-741-5500 (from anywhere in the world). For laboratory and industrial use only.

Not for drug, food or household use.

### Product IODINE-POTASSIUM IODIDE SOLUTION

Synonyms Iodine-Iodide / Iodine Solution / Iodine / Iodine Lugol's Dilute / Gram's Iodine Solution / Dilute Lugol's Solution

#### Section 2 Hazards Identification

#### Signal word: WARNING

Pictograms: GHS07 / GHS09 Target organs: Thyroid, kidneys, endocrine system, skin, eyes, reproductive system. central nervous system.



#### **GHS Classification:**

Acute toxicity, dermal (Category 4) Acute toxicity, inhalation (Category 4) Aquatic toxicity, acute (Category 1)

#### GHS Label information: Hazard statement(s):

H312: Harmful in contact with skin. H332: Harmful if inhaled.

H400: Very toxic to aquatic life.

#### Precautionary statement(s):

P261: Avoid breathing mist/vapours/spray.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352: IF ON SKIN: Wash with plenty of water and soap.
P312: Call a POISON CENTER or doctor if you feel unwell.
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.
P312: Call a POISON CENTER or doctor if you feel unwell.
P391: Collect spillage.
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

#### Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

| Section 3                           | Composition / Information on | Ingredients                         |                          |                                     |  |
|-------------------------------------|------------------------------|-------------------------------------|--------------------------|-------------------------------------|--|
| Chemical Name                       |                              | CAS #                               | %                        | EINECS                              |  |
| Water<br>Potassium iodide<br>Iodine |                              | 7732-18-5<br>7681-11-0<br>7553-56-2 | 95.10%<br>3.05%<br>1.85% | 231-791-2<br>231-659-4<br>231-442-4 |  |
| Section 4                           | First Aid Measures           |                                     |                          |                                     |  |

Section 4 First Aid Measures

**INGESTION:** MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: HARMFUL IF INHALED. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. Harmful if inhaled.

EYE CONTACT: MAY CAUSE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: HARMFUL IN CONTACT WITH SKIN. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention. Harmful in contact with skin.

#### Section 5 Fire Fighting Measures

Extinguishing Media: Use any media suitable for extinguishing supporting fire.

General information: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: In fire conditions, water may evaporate from this solution which may cause hazardous decomposition products to be formed as dust or fume.

#### Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

#### Section 7 Handling & Storage

Read label on container before using. Do not wear contact lenses when working with chemicals. Keep container tightly closed. Keep out of reach of children. Use with adequate ventilation. Wash thoroughly after handling.

Handling: Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid ingestion. Do not inhale vapors, mist or spray. Wash thoroughly after handling. Remove and wash clothing before reuse.

#### Storage: Store in a cool, well-ventilated area away from incompatible substances. Section 8 **Exposure Controls / Personal Protection** Chemical Name ACGIH (TLV) OSHA (PEL) NIOSH (REL) Exposure Limits: TWA: 0.01 ppm<sup>(IFV)</sup>/ STEL: 0.1 ppm<sup>(V)</sup> Iodine CAS # 7553-56-2 STEL: C 0.1 ppm/C 1 mg/m<sup>3</sup> STEL: C 0.1 ppm/C 1 mg/m<sup>3</sup> Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low. Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHAapproved respirator. **Physical & Chemical Properties** Section 9 Appearance: Deep amber liquid. Evaporation rate (Water = 1): < 1 Partition coefficient: (n-octanol / water): Not applicable Odor: Characteristic odor Flammability (solid/gas): Not applicable. Auto-ignition temperature: Not applicable Odor threshold: Not applicable. Explosion limits: Lower / Upper: Not applicable Decomposition temperature: Data not available. pH: Data not available. Vapor pressure (mm Hg): 14 [water] Viscosity: Data not available. Melting / Freezing point: ~ 0°C (~ 32°F) [water] Vapor density (Air = 1): 0.7 [water] Molecular formula: Mixture Boiling point: ~ 100°C (212°F) [water] Relative density (Specific gravity): 1.0 [water] Molecular weight: Mixture Flash point: Not flammable. Solubility(ies): Complete in water. Section 10 Stability & Reactivity Chemical stability: Stable Hazardous polymerization: Will not occur. Conditions to avoid: Stable under recommended storage conditions. Excessive temperatures which cause evaporation. Incompatibilities with other materials: Metals or unsaturated organic compounds, ammonia solutions or alkaline solutions of ammonia salts. Will form explosive nitrogen iodides when reacted with gaseous ammonia. Hazardous decomposition products: Toxic iodide fumes Section 11 **Toxicological Information** Acute toxicity: Oral-Rat LD50: 14,000 mg/kg [lodine CAS # 7553-56-2] Skin corrosion/irritation: Data not available Serious eve damage/irritation: Data not available Respiratory or skin sensitization: Inhalation-rat 3.1 mg/m3 / 24 hour / 13 weeks - continuous [lodine CAS # 7553-56-2] Germ cell mutagenicity: Data not available Carcinogenity: Data not available IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available Potential health effects: Inhalation: Symptoms include cough, wheezing, and labored breathing. Symptoms may be delayed. Ingestion: Causes abdominal pain, diarrhea, nausea, and vomiting. Ingestion of levels of 2-3 grams of iodine may cause death. Skin: Contact may cause redness and pain. Eyes: Contact causes watering of the eyes, redness and pain. Signs and symptoms of exposure: Effects of short-term exposure: Lachrymator. The substance is severely irritating to the eyes and the respiratory tract, and is irritating to the skin. Inhalation of the vapor may cause asthma-like reactions. Inhalation of the vapor may cause lung edema. The effects may be delayed. Effects of long-term exposure: Repeated or prolonged contact may cause skin sensitization in rate cases. Repeated or prolonged inhalation exposure may cause asthma-like syndrome. The substance may have effects on the thyroid. Specific data not available for this mixture. Exercise appropriate procedures to minimize potential hazards... Additional information: RTECS #: NN1575000 [lodine CAS # 7553-56-2] Section 12 **Ecological Information** Toxicity to fish: Very toxic to aquatic life. Toxicity to daphnia and other aquatic invertebrates: No data available Toxicity to algae: No data available Persistence and degradability: No data available Bioaccumulative potential: No data available Mobility in soil: No data available PBT and vPvB assessment: No data available Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. **Disposal Considerations** Section 13 These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency. Transport Information (US DOT / CANADA TDG) Section 14 UN/NA number: Not applicable Shipping name: Not Regulated Hazard class: Not applicable Packing group: Not applicable Reportable Quantity: No Marine pollutant: No Exceptions: Not applicable 2016 ERG Guide # Not applicable **Regulatory Information** Section 15 A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list. CERLCA (RQ) RCRA code DSL NDSL Component TSCA CA Prop 65 This product does not contain lodine Listed Not listed Not listed Listed Not listed any chemicals known to the State Potassium iodide Listed Not listed Not listed Listed Not listed of California to cause cancer or reproductive toxicity. Section 16 **Other Information** The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure,

ERG: Emergency Response Guidebook

#### SAFETY DATA SHEET

## GENERAL STORAGE CODE GREEN

Page E1 of E2

Section 1 Chemical Product and Company Identification

#### HOME SCIENCE TOOLS

665 Carbon Street Billings, MT 59102 800-860-6272 www.homesciencetools.com

## CHEMTREC 24 Hour Emergency USA

Phone Number (800) 424-9300 1 703-741-5500 (from anywhere in the world). For laboratory and industrial use only. Not for drug, food or household use.

## Product SODIUM BORATE, DECAHYDRATE

## Synonyms Sodium Tetraborate ; Borax Section 2 Hazards Identification

Signal word: DANGER Pictograms: GHS08 / GHS07 Target organs: None known.



**GHS Classification:** Eye irritation (Category 2A) Reproductive toxicity (Category 1B)

#### GHS Label information: Hazard statement:

H319: Causes serious eye irritation. H360: May damage fertility or the unborn child.

#### Precautionary statement:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
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 attention.
P308+P313: IF exposed or concerned: Get medical attention.
P405: Store locked up.
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

#### Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known

Physical hazards not otherwise classified (PHNOC) - Not Known

| Section 3 Composition / Information on Ingredients |           |      |           |  |  |  |
|--|-----------|------|-----------|--|--|--|
| Chemical Name                                      | CAS #     | %    | EINECS    |  |  |  |
| Sodium borate, decahydrate                         | 1303-96-4 | 100% | 215-540-4 |  |  |  |
|  |           |      |           |  |  |  |
|  |           |      |           |  |  |  |
|  |           |      |           |  |  |  |
|  |           |      |           |  |  |  |
|  |           |      |           |  |  |  |
| Section 4 First Aid Measures                       |           |      |           |  |  |  |

**INGESTION:** MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY BE HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: MAY CAUSE EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY BE HARMFUL IF ABSORBED THROUGH SKIN. MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

#### Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: This product is an inherent fire retardant. There are no unusual fire and explosion hazards.

#### Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

#### Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances

| Section 8        | Exposure Controls / Personal Protection |   |                  |                  |  |  |  |
|------------------|---|---|------------------|------------------|--|--|--|
| Exposure Limits: | Chemical Name                           | ACGIH (TLV)   | OSHA (PEL)       | NIOSH (REL)      |  |  |  |
| Exposure Limits. | Borate compounds inorganic              | TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup> (A4) | None established | None established |  |  |  |

Engineering controls: Facilities storing or utilizing this material should be equipped with an evewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHAapproved respirator.

| Section 9 Physical & Chemical Prop   | perties  |  |
|--|--|--|
| Appearance: White, crystalline powder<br>Odor: No odor<br>Odor threshold: Data not available<br>pH: Data not available<br>Melting / Freezing point: 62°C (144°F)<br>Boiling point: Data not available<br>Flash point: Data not available | Evaporation rate (=1): Data not available<br>Flammability (solid/gas): Not flammable<br>Explosion limits: Lower / Upper: Data not available<br>Vapor pressure (mm Hg): Data not available<br>Vapor density (Air = 1): Data not available<br>Relative density (Specific gravity): 1.73<br>Solubility(ies): Soluble in water | Partition coefficient: Data not available<br>Auto-ignition temperature: Data not available<br>Decomposition temperature: Data not available<br>Viscosity: Data not available<br>Molecular formula: $Na_2B_4O_7 \cdot 10H_2O$<br>Molecular weight: 381.37 |
| Section 10 Stability & Reactivity  |  |  |

Chemical stability: Stable

Hazardous polymerization: Will not occur.

Conditions to avoid: When heated, loses water, eventually forming anhydrous borax.

Incompatible materials: Strong acids, oxidizers and reducing agents.

Hazardous decomposition products: Boron oxide and sodium oxides.

#### Section 11 **Toxicological Information**

Acute toxicity: Oral-rat LD50: 2,600 mg/kg ; Inhalation-rat LC50: >2.0 mg/l ; Dermal-rabbit LD50: >10,000 g/kg

Skin corrosion/irritation: Data not available Serious eye damage/irritation: Data not available

Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: Data not available

STOT-single exposure: Data not available

STOT-repeated exposure: Data not available

Aspiration hazard: Data not available Potential health effects:

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion: Ingestion may cause gastrointestinal irritation. Symptoms of over-exposure my include nausea, vomiting and diarrhea.

Skin: Contact may cause irritation.

Eyes: Contact may cause irritation.

Signs and symptoms of exposure: Animal feeding studies in rat, mouse and dog, at high doses, have demonstrated effects on fertility and testes. Studies with the chemically related boric acid in the rat, mouse and rabbit, at high doses, demonstrate developmental effects on the fetus, including fetal weight loss and minor skeletal variations. The doses administered were many times in excess of those to which humans would normally be exposed. Human epidemiological studies show no increase in pulmonary disease in occupational populations with cronic exposures to boric acid dust and sodium borate dust. A recent epidemiological study under the conditions of normal occupational eposure to borate dusts indicated no effect on fertility.

Additional information: RTECS #: VZ2275000

#### Section 12

**Ecological Information** Toxicity to fish: LC50 - Carassius auratus (goldfish) - 178 mg/l - 72 h

Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 1,085 - 1,402 mg/l - 48 h

Toxicity to algae: IC50 - Desmodesmus subspicatus (green algae) - 158 mg/l - 96 h

Persistence and degradability: No data available Bioaccumulative potential: No data available

Mobility in soil: No data available PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

#### Section 13 **Disposal Considerations**

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency. Transport Information (US DOT / CANADA TDG) Section 14

| <br>           |               |  |
|----------------|---------------|--|
| Not applicable | Chinning nome |  |

| Hazard class: Not applicable<br>Exceptions: Not applicable | applicable Packing group: Not applicable Reportable Quantity: No |                           | Μ          | arine pollutant: No |            |   |
|--|--|---------------------------|------------|---------------------|------------|---|
| Section 15 Regulatory Int                                  | formation  |                           |            |                     |            |   |
| A chemical is considered to be listed if the C             | AS number for the anhydrous form                                 | is on the Inventory list. |            |                     |            |   |
| Component  | TSCA   | CERLCA (RQ)               | RCRA code  | DSL                 | NDSL       | CA Prop 65  |
| Sodium borate, decahydrate                                 | Listed   | Not listed                | Not listed | Listed              | Not listed | This product does not contain<br>any chemicals known to the State<br>of California to cause cancer or |

#### Section 16 **Other Information**

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook Form 06/2015