

Issue Date 23-Jan-2015

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Version 1

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product Name** SB-241**Other means of identification****Product Code** 230  
**UN/ID No.** UN1824  
**Synonyms** None**Recommended use of the chemical and restrictions on use****Recommended Use** Alkaline boil-out formulation for new and re-tubed boilers.  
**Uses advised against** No information available**Manufacturer Address**

Anderson Chemical Company, 325 South Davis Avenue, Litchfield, MN 55355 (320-693-2477)

**Emergency telephone number**

Chemtrec 1-800-424-9300

**2. HAZARDS IDENTIFICATION****Classification**

|                                   |                           |
|-----------------------------------|---------------------------|
| Skin corrosion/irritation         | Category 1 Sub-category A |
| Serious eye damage/eye irritation | Category 1                |
| Corrosive to metals               | Category 1                |

**Label elements****Emergency Overview****Danger****Hazard statements**Causes severe skin burns and eye damage  
May be corrosive to metals**Appearance** aqueous solution**Physical state** liquid**Odor** Amine**Precautionary Statements - Prevention**Use personal protective equipment as required  
Do not breathe dust/fume/gas/mist/vapors/spray  
Wash face, hands and any exposed skin thoroughly after handling  
Keep only in original container**Precautionary Statements - Response**Immediately call a POISON CENTER or doctor/physician  
Specific treatment (see Section 4 on this label)  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
Immediately call a POISON CENTER or doctor/physician

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 Wash contaminated clothing before reuse  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Immediately call a POISON CENTER or doctor/physician  
 IF SWALLOWED: Rinse mouth. DO NOT induce vomiting  
 Absorb spillage to prevent material damage

**Precautionary Statements - Storage**

Store locked up  
 Store in a corrosive resistant container.

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)****Other Information**

Unknown Acute Toxicity 8.3% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

| Chemical Name    | CAS No.   | Weight-% | Trade Secret |
|------------------|-----------|----------|--------------|
| Sodium hydroxide | 1310-73-2 | 10       |              |
| Sodium Nitrate   | 7631-99-4 | 1.7      |              |

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

**First aid measures**

|   |   |
|---|---|
| <b>General advice</b>                     | Immediate medical attention is required.  |
| <b>Eye contact</b>                        | Flush immediately with water for 15 minutes. Lift upper and lower eyelids for complete rinsing. Get immediate medical attention.  |
| <b>Skin Contact</b>                       | Flush with water for 15 minutes. Get medical attention. Remove contaminated clothing and wash before reuse.   |
| <b>Inhalation</b>                         | Remove victim from immediate source of exposure to fresh air. If breathing is difficult, administer oxygen if available. If victim is not breathing, administer CPR. If individual experiences nausea, headache, or dizziness, get immediate medical attention. |
| <b>Ingestion</b>                          | Rinse mouth with water. Give water to dilute. Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to a semi-comatose, comatose, convulsing or unconscious person.   |
| <b>Self-protection of the first aider</b> | Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.   |

**Most important symptoms and effects, both acute and delayed**

|                 |  |
|-----------------|--|
| <b>Symptoms</b> | Corrosive. Causes irritation (possibly severe), burns to the eyes. May cause permanent eye damage. Causes irritation (possibly severe), burns to the skin. Causes irritation (possibly severe), burns, pulmonary edema to the respiratory tract. Causes irritation (possibly severe), burns, nausea, vomiting to the gastrointestinal tract. The severity of effects depend on concentration and how soon after exposure the area is washed. |
|-----------------|--|

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** None known.

### Specific hazards arising from the chemical

If the stock solution container breaks, the solution should be handled with care as it is corrosive.

### Explosion data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Evacuate nonessential personnel. Ventilate area. Wear appropriate personal protection equipment.

**Other Information** Not Applicable.

**Environmental precautions** Prevent run-off into ground or surface waters or sewers. See Section 12 for additional ecological information.

**Methods for containment** Completely contain spilled material with dikes or sand bags, etc.

**Methods for cleaning up** Recover as much material as possible into containers for disposal or reuse. Remaining material may be diluted with water and neutralized. Flush spill area with water. Neutralization products, both solid and liquid, must be recovered for disposal.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Do not get in eyes, on skin, or clothing. Do not breathe vapors or mists. Do not ingest. Wash thoroughly after handling. Wear protective clothing/equipment. Use with adequate ventilation.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

**Incompatible materials** Aluminum. Tin. Zinc. Strong acids.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure Guidelines** .

| Chemical Name                 | ACGIH TLV                    | OSHA PEL   | NIOSH IDLH   |
|-------------------------------|------------------------------|--|--|
| Sodium hydroxide<br>1310-73-2 | Ceiling: 2 mg/m <sup>3</sup> | TWA: 2 mg/m <sup>3</sup><br>(vacated) Ceiling: 2 mg/m <sup>3</sup> | IDLH: 10 mg/m <sup>3</sup><br>Ceiling: 2 mg/m <sup>3</sup> |

**Appropriate engineering controls**

Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

|                                 |   |
|---------------------------------|---|
| <b>Eye/face protection</b>      | Wear protective splash proof safety goggles. Additional full face protection is recommended if splashing is a possibility.  |
| <b>Skin and body protection</b> | Wear protective gloves and protective clothing. Protective shoes or boots.  |
| <b>Respiratory protection</b>   | If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. |

**General Hygiene Considerations** Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

|                       |                  |                       |                          |
|-----------------------|------------------|-----------------------|--------------------------|
| <b>Physical state</b> | liquid           | <b>Odor</b>           | Amine                    |
| <b>Appearance</b>     | aqueous solution | <b>Odor threshold</b> | No information available |
| <b>Color</b>          | clear amber      |                       |                          |

| <u>Property</u>               | <u>Values</u>                            | <u>Remarks • Method</u> |
|-------------------------------|--|-------------------------|
| pH                            | 13.65                                    |                         |
| Melting point/freezing point  | No information available                 |                         |
| Boiling point / boiling range | No information available                 |                         |
| Flash point                   | No information available                 |                         |
| Evaporation rate              | No information available                 |                         |
| Flammability (solid, gas)     | No information available                 |                         |
| Flammability Limit in Air     |  |                         |
| Upper flammability limit:     | No information available                 |                         |
| Lower flammability limit:     | No information available                 |                         |
| Vapor pressure                | No information available                 |                         |
| Vapor density                 | No information available                 |                         |
| Specific Gravity              | 1.132                                    |                         |
| Water solubility              | Soluble in water                         |                         |
| Solubility in other solvents  | No information available                 |                         |
| Partition coefficient         | No information available                 |                         |
| Autoignition temperature      | No information available                 |                         |
| Decomposition temperature     | No information available                 |                         |
| Kinematic viscosity           | No information available                 |                         |
| Dynamic viscosity             | No information available                 |                         |
| Explosive properties          | Not considered to be an explosion hazard |                         |
| Oxidizing properties          | No information available                 |                         |

**Other Information**

|                  |                          |
|------------------|--------------------------|
| Softening point  | No information available |
| Molecular weight | No information available |
| VOC Content (%)  | No information available |
| Density          | No information available |
| Bulk density     | No information available |

## 10. STABILITY AND REACTIVITY

**Reactivity**

No data available

**Chemical stability**

Stable under normal conditions of use and storage.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

Incompatible materials. Exposure to air or moisture over prolonged periods.

**Incompatible materials**

Aluminum. Tin. Zinc. Strong acids.

**Hazardous Decomposition Products**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

|                            |  |
|----------------------------|--|
| <b>Product Information</b> | No data available  |
| <b>Inhalation</b>          | Inhalation of vapors in high concentration may cause irritation of respiratory system. |
| <b>Eye contact</b>         | Corrosive to the eyes and may cause severe damage including blindness.                 |
| <b>Skin Contact</b>        | Contact causes severe skin irritation and possible burns.                              |
| <b>Ingestion</b>           | May be harmful if swallowed.   |

| Chemical Name                 | Oral LD50            | Dermal LD50             | Inhalation LC50 |
|-------------------------------|----------------------|-------------------------|-----------------|
| Sodium hydroxide<br>1310-73-2 | -                    | = 1350 mg/kg ( Rabbit ) | -               |
| Sodium Nitrate<br>7631-99-4   | = 1267 mg/kg ( Rat ) | -                       | -               |

**Information on toxicological effects****Symptoms** No information available.**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Sensitization** No information available.**Germ cell mutagenicity** No information available.**Carcinogenicity** No information available.

| Chemical Name               | ACGIH | IARC     | NTP | OSHA |
|-----------------------------|-------|----------|-----|------|
| Sodium Nitrate<br>7631-99-4 | -     | Group 2A | -   | X    |

**Reproductive toxicity** No information available.**STOT - single exposure** No information available.**STOT - repeated exposure** No information available.**Aspiration hazard** No information available.**Numerical measures of toxicity - Product Information****Unknown Acute Toxicity** 8.3% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 74529 mg/kg  
ATEmix (dermal) 13500 mg/kg

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Harmful to aquatic life with long lasting effects

8.3% of the mixture consists of component(s) of unknown hazards to the aquatic environment

| Chemical Name                 | Algae/aquatic plants | Fish   | Crustacea |
|-------------------------------|----------------------|--|-----------|
| Sodium hydroxide<br>1310-73-2 | -                    | 45.4: 96 h Oncorhynchus mykiss<br>mg/L LC50 static   | -         |
| Sodium Nitrate<br>7631-99-4   | -                    | 2000: 96 h Lepomis macrochirus<br>mg/L LC50 static 994.4 - 1107: 96 h<br>Oncorhynchus mykiss mg/L LC50<br>static | -         |

### Persistence and degradability

No information available.

### Bioaccumulation

No information available.

| Chemical Name               | Partition coefficient |
|-----------------------------|-----------------------|
| Sodium Nitrate<br>7631-99-4 | -3.8                  |

### Other adverse effects

No information available

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

#### **Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

#### **Contaminated packaging**

Do not reuse container.

| Chemical Name                 | California Hazardous Waste Status |
|-------------------------------|-----------------------------------|
| Sodium hydroxide<br>1310-73-2 | Toxic<br>Corrosive                |
| Sodium Nitrate<br>7631-99-4   | Toxic<br>Ignitable<br>Reactive    |

## 14. TRANSPORT INFORMATION

### DOT

UN/ID No. Regulated  
UN1824  
Proper shipping name Sodium Hydroxide Solution  
Hazard Class 8  
Packing Group II

## 15. REGULATORY INFORMATION

### International Inventories

|                      |                 |
|----------------------|-----------------|
| <b>TSCA</b>          | Complies        |
| <b>DSL/NDSL</b>      | Complies        |
| <b>EINECS/ELINCS</b> | Complies        |
| <b>ENCS</b>          | Does not comply |
| <b>IECSC</b>         | Complies        |
| <b>KECL</b>          | Complies        |
| <b>PICCS</b>         | Complies        |
| <b>AICS</b>          | Complies        |

### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name              | SARA 313 - Threshold Values % |
|----------------------------|-------------------------------|
| Sodium Nitrate - 7631-99-4 | 1.0                           |

#### **SARA 311/312 Hazard Categories**

|  |     |
|--|-----|
| <b>Acute health hazard</b>               | Yes |
| <b>Chronic Health Hazard</b>             | No  |
| <b>Fire hazard</b>                       | No  |
| <b>Sudden release of pressure hazard</b> | No  |
| <b>Reactive Hazard</b>                   | No  |

#### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical Name                 | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|-------------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Sodium hydroxide<br>1310-73-2 | 1000 lb                     | -                      | -                         | X                          |

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

| Chemical Name                 | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ)                  |
|-------------------------------|--------------------------|----------------|---|
| Sodium hydroxide<br>1310-73-2 | 1000 lb                  | -              | RQ 1000 lb final RQ<br>RQ 454 kg final RQ |

### US State Regulations

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals

#### **U.S. State Right-to-Know Regulations**

| Chemical Name                 | New Jersey | Massachusetts | Pennsylvania |
|-------------------------------|------------|---------------|--------------|
| Sodium hydroxide<br>1310-73-2 | X          | X             | X            |
| Sodium Nitrate<br>7631-99-4   | X          | X             | X            |

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not Applicable

**16. OTHER INFORMATION**

|             |                  |                |                    |                                    |
|-------------|------------------|----------------|--------------------|------------------------------------|
| <b>NFPA</b> | Health hazards 2 | Flammability 0 | Instability 1      | Physical and Chemical Properties - |
| <b>HMIS</b> | Health hazards 2 | Flammability 0 | Physical hazards 1 | Personal protection X              |

Prepared By                      lmt  
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**Revision Note**

No information available

**Disclaimer**

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**