SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT NAME: HOT TANK CLEANER
SYNONYMS: Product is a mixture: No synonyms are available
PRODUCT USE: Highly Alkaline Material
SUPPLIER: DYNACCO INC.
SUPPLIER'S ADDRESS: PO BOX 27, MONROE, WA 98272 (360) 794-8974
EMERGENCY RESPONSE PHONE: PERS: 1-800-633-8253

SECTION 2 – HAZARD IDENTIFICATION

GHS – US CLASSIFICATION:
- H290 Metal corrosion Category 1
- H302 Harmful if swallowed
- H314 Skin Corrosion Category 1A
- H318 Serious Eye Damage Category 1

HAZARD PICTOGRAMS:

SIGNAL WORD: DANGER

GHS LABEL ELEMENTS: The product is classified and labeled according to the Globally Harmonized System (GHS).

GHS PHYSICAL HAZARDS:
- H290 May be corrosive to metals.
- H302 Harmful if swallowed
- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.
- H370 Causes damage to respiratory system by inhalation.

GHS HEALTH HAZARDS:
- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P103 Read label before use.
- P260 Do not breathe dust/fume/gas/mist/vapors/spray.
- P264 Wash skin and contaminated clothing thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear suitable protective gloves/protective clothing/eye protection/face protection.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P303+P361 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+P351 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P305+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position.
- P310 Immediately call a POISON CENTER or doctor/physician.
- P330 Rinse mouth if ingested.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

CLASSIFICATION SYSTEM:
- NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme.
- NFPA ratings (scale 0-4): Health = 3, Fire = 0, Reactivity = 1
- HMIS ratings (scale 0-5): Health = 3, Fire = 0, Reactivity = 1
SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL CHARACTERIZATION: Mixtures
DESCRIPTION: Mixture of the substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>PERCENT</th>
<th>CAS #</th>
<th>EC #</th>
<th>GHS CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>25-45</td>
<td>1310-73-2</td>
<td>215-185-5</td>
<td>Metal Corr Cat 1, Skin Corr. Cat. 1A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. Cat. 1, Aquatic Acute Cat 3</td>
</tr>
<tr>
<td>Sodium Gluconate</td>
<td>1-5</td>
<td>527-07-1</td>
<td>208-407-7</td>
<td>Not Found</td>
</tr>
<tr>
<td>Sodium Glucoheptonate</td>
<td>1-5</td>
<td>31138-65-5</td>
<td>250-480-2</td>
<td>Not Found</td>
</tr>
<tr>
<td>Alkylether Hydroxypropyl Sultaine</td>
<td>&lt; 1</td>
<td>108797-84-8</td>
<td>Not</td>
<td>Skin Irrit Cat 2, Eye Irrit Cat 2A</td>
</tr>
<tr>
<td></td>
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</tbody>
</table>


SECTION 4 – FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with water for at least 15 minutes. Hold eyelids open to ensure adequate flushing. Get immediate medical attention.

SKIN CONTACT: Remove contaminated clothing and shoes. Wash affected skin area with soap and water. Delayed skin damage is possible if product is not completely washed off. Get immediate medical attention.

SWALLOWING (INGESTION): If ingested, dilute swallowed material by drinking water. DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious person. Get immediate medical attention.

INHALATION: Remove to fresh air. Get immediate medical attention.

GENERAL MEASURES: Never give anything by mouth to an unconscious person. Rescue personnel must wear appropriate protective equipment during removal of victims from contaminated areas. Treat symptomatically and supportively.

SECTION 5 – FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water spray, fog, carbon dioxide, foam, dry chemical
SPECIAL HAZARDS (FIRE): Not flammable. Contains sodium hypochlorite which may act as an oxidizer in some cases intensifying a fire.
EXPLOSION HAZARDS: Product is not explosive.
REACTIVITY (FIRE): Thermal decomposition generates: Corrosive vapors. If the product is involved in a fire, it can release explosive hydrogen gas. When heated to decomposition, emits toxic fumes. May be corrosive to metals.

SPECIAL INSTRUCTIONS TO FIRE FIGHTERS
PRECAUTIONARY MEASURES: Exercise caution when fighting any chemical fire.
FIREFIGHTING INSTRUCTIONS: Use water spray or fog for cooling exposed containers.
PROTECTION DURING FIREFIGHTING: Do not enter fire area without proper protective equipment, including respiratory protection.
OTHER INFORMATION (FIRE): Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND: Restrict access to keep out unauthorized or unprotected personnel. Wear protective equipment. Avoid inhalation and direct contact.
EMERGENCY PROCEDURES
ENVIRONMENTAL PRECAUTIONS: Keep spilled material away from sewage/drainage systems and waterways. This product contains a U.S. EPA Reportable Quantity (RQ) substance. If amounts exceeding the Reportable Quantity are released, notification of the National Response Center (800) 424-8802 is required. See section 15 for more information.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP: All clean-up personnel must be properly trained. Confine the spill and remove incompatible materials and ignition sources. Ensure adequate ventilation. Secure the source of the leak if conditions are safe. Neutralize spill and collect using an appropriate absorbent material such as clay or vermiculite. Place waste in an appropriate container for disposal. Use care during clean-up to avoid exposure to the material and injury from broken containers.

SECTION 7 – HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling.

CONDITIONS FOR SAFE STORAGE: Store in a dry, cool and well ventilated place. Keep container closed when not in use. Keep/store away from extremely high or low temperatures, direct sunlight, heat and incompatible materials (Strong acid, Strong oxidizers).

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

TLV (THRESHOLD LIMIT VALUE): The TLV in section in section III is the ACGIH/TLV-TWA (threshold limit value/time weighted average concentration for an eight hour work day). The STEL is the short term exposure limit and the (Ceil) is the ceiling limit.

COMPONENT | OSHA PEL – TWA | ACGIH TLV-Ceiling | ACGIH – STEL
--- | --- | --- | ---
Sodium Hydroxide | 2 mg/m³ (Ceiling) | 2 mg/m³ (Ceiling) | Not Established
Sodium Gluconate | Not Established | Not Established | Not Established
Sodium Heptonate | Not Established | Not Established | Not Established
Alkylether Hydroxypropyl Sultaine | Not Established | Not Established | Not Established

EYE PROTECTION: Wear chemical splash goggles or face shield.

SKIN PROTECTION: Minimize contact with product. Wear chemical resistant coveralls, boots, gloves, apron and/or suitable long-sleeved clothing.

RESPIRATORY PROTECTION: In case of brief exposure use respiratory filter device. In case of intensive or longer exposure, use respiratory protective device that is independent of circulating air.

VENTILATION: Ensure adequate ventilation.

ADDITIONAL MEASURES: Emergency eyewash and safety shower facilities should be available in the immediate work area.

REQUIRED WORK/HYGIENE: Wash hands thoroughly after handling. Keep away from all food stuffs, beverages and feed. Do not eat, drink or smoke in work area.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear amber liquid with mild odor
### ODOR
- Mild odor

### ODOR THRESHOLD
- Not available

### PH
- > 13.5

### MELTING POINT/FREEZING POINT
- Not available

### BOILING POINT
- Not available

### FLASHPOINT
- Not applicable

### EVAPORATION RATE
- Not available

### FLAMMABILITY
- Non flammable, Non combustible

### LOWER FLAMMABILITY LIMIT
- Not applicable

### UPPER FLAMMABILITY LIMIT
- Not applicable

### VAPOR PRESSURE
- Not available

### VAPOR DENSITY (AIR=1)
- Not available

### RELATIVE DENSITY
- 1.48

### SOLUBILITY IN WATER
- Soluble in water

### PARTITION COEFFICIENT n-OCTANOL/WATER
- Not available

### AUTOIGNITION TEMPERATURE
- Not available

### DECOMPOSITION TEMPERATURE
- Not available

### SECTION 10 – STABILITY AND REACTIVITY

#### REACTIVITY
- Thermal decomposition generates: Corrosive vapors. If the product is involved in a fire, it can release explosion hydrogen gas. When heated to decomposition, emits toxic fumes. May be corrosive to metals.

#### STABILITY
- Stable under recommended storage conditions.

#### HAZARDOUS CONDITIONS TO AVOID

#### INCOMPATIBLE MATERIALS
- Strong acids. Strong oxidizers. Soft metals. May be corrosive to metal.

#### HAZARDOUS DECOMPOSITION PRODUCTS

### SECTION 11 – TOXICOLOGICAL INFORMATION

#### TOXICOLOGICAL INFORMATION
- **Sodium Hydroxide**
  - **ACUTE TOXICITY**
    - Draize test, rabbit, eye: 400 ug Mild;
    - Draize test, rabbit, eye: 1% Severe;
    - Draize test, rabbit, eye: 50 ug/24H Severe;
    - Draize test, rabbit, eye: 1 mg/24H Severe;
    - Draize test, rabbit, skin: 500 mg/24H Severe
  - **EYE CONTACT**
    - Causes severe eye damage.
  - **SKIN CONTACT**
    - Causes skin burns. Onset of symptoms may be delayed following exposure.
  - **INHALATION**
    - Corrosive to respiratory tract.
  - **INGESTION**
    - Corrosive to respiratory tract.
  - **CARCINOGENICITY**
    - The components of this product are not classified as carcinogenic by OSHA, NTP IARC or CA Prop 65

#### TOXICOLOGICAL INFORMATION
- **Sodium Gluconate**
  - **ACUTE TOXICITY**
    - LD50: Not available, LC50: Not available.
  - **CHRONIC EFFECTS ON HUMANS**
    - Not available.
  - **OTHER TOXIC EFFECTS ON HUMANS**
    - Slightly hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.
### Section 12 – Ecological Information

<table>
<thead>
<tr>
<th>Toxicoological Information</th>
<th>Sodium Glucoheptonate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity</td>
<td>LD50: Oral (Rat): 980mg/kg.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not listed with ACGIH, IARC, NIOSH, NTP, OSHA.</td>
</tr>
<tr>
<td>Other Toxic Effects on Humans</td>
<td>Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Toxicoological Information</th>
<th>Alkylether Hydroxypropyl Sultaine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity</td>
<td>LD50 Oral (Rat): 13,800mg/kg, Skin (rabbit): Slightly irritating, Eyes (rabbit): Slightly irritating. Acute Inhalation Toxicity: No data found</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>This product is not considered to be probable or suspected human carcinogens by IARC, ACGIH, NTP or OSHA.</td>
</tr>
</tbody>
</table>

### Section 13 – Disposal Considerations
WASTE DISPOSAL RECOMMENDATIONS: This product must be disposed of in accordance with Federal, state and local environmental regulations. Discarded materials may be considered hazardous waste due to pH/corrosivity. It is the responsibility of the product user to determine at the time of disposal whether a material containing, or derived from this product, should be classified as a hazardous waste.

ECOLOGY-WASTE MATERIALS: This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14 – TRANSPORTATION INFORMATION

DOT/IMDG/ IATA PROPER SHIPPING NAME: UN-1824, SODIUM HYDROXIDE, SOLUTION 8 PG-II
HAZARD CLASS AND LABEL: 8 (Corrosive)
UN NUMBER: UN 1824
PACKAGING GROUP: PG-II
EPA REPORTABLE QUANTITY (RQ): 1000 LBS. (454 KG) as Sodium Hydroxide 100%.
MARINE POLLUTANT: Marine Pollutant
EMERGENCY RESPONSE GUIDE: ERG-154

SECTION 15 – REGULATORY INFORMATION

U.S. FEDERAL REGULATORY INFORMATION:
LISTED CARCINOGEN: Not listed
TSC STATUS: The ingredients of this product are listed on TSCA (Toxic Substances Control Act) inventory (40CFR 710.)
SARA SECTION 302: None
SARA SECTION 311/312 HAZARD CLASS: Immediate (acute) health hazard.
SARA SECTION 313: Not Listed
NFPA HEALTH: 3
NFPA FLAMMABILITY: 0
NFPA REACTIVITY: 1

EUROPEAN UNION REGULATORY INFORMATION:
EC CLASSIFICATION: C: Corrosive, Xn: Harmful.
DSD/DPD RISK (R) PHRASES: R34: Causes severe burns.
R22: Harmful is swallowed.
DSD/DPD SAFETY (S) PHRASES: S1/2: Keep locked up and out of reach of children.
S18: Handle and open containers with care.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/S37/39: Wear suitable protective clothing, gloves and eye/face protection.
S45: In case of accidents or if you feel unwell, seek medical advice immediately. Show label where possible.
S61: Avoid release to the environment.
S64: If swallowed, rinse mouth with water if victim is conscious.

DSD/DPD HAZARD SYMBOL: C: Corrosive, Xn: Harmful

CANADIAN REGULATORY INFORMATION
WHMIS CATEGORY: Class E: Corrosive: Sodium Hydroxide, Potassium Hydroxide
Class D2B: Materials causing other toxic effects (TOXIC): Sodium Carbonate

DOMESTIC SUBSTANCES LIST (DSL): Listed
INGREDIENT DISCLOSURE LIST: Listed, This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by the CPR.

SECTION 16 – OTHER INFORMATION

DISCLAIMER: The information contained herein has been compiled from sources believed to be reliable and accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Dynacco Inc. assumes no responsibility for injury to any person or property resulting from any use of the material. Each user assumes the risk in their use of this product and should review the data and recommendations in the specific context of their intended use.

EINECS: European Inventory of Existing Commercial Chemical Substances
IMDG: International Maritime Code for Dangerous Goods
IARC: International Agency for Research on Cancer
IATA: International Air Transportation Association
ACGIH: American Conference of Governmental Industrial Hygienists
NFPA: National Fire Protection Association (USA)
NTP: National Toxicology Program
SARA: Superfund Amendments and Reauthorization Act
TSCA: Toxic Substances Control Act
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
STOT: Systemic Target Organ Toxicity
DATE PREPARED: JAN 12, 2011
DATE REVISED: JUN 12, 2014