SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier
- Product Name: Sodium Peroxide
- Product Codes(s): Sodium Peroxide
- Synonyms: Sodium dioxide; Solozone; Disodium dioxide; Disodium peroxide
- REACH Registration Number: No data available

1.2 Relevant identified uses of the substance or mixture and uses advised against
- General Use: For use in industrial and formulation applications
- Uses advised against: No uses advised against

1.3 Details of the supplier and of the safety data sheet
- Manufacturer/Distributor: Allan Chemical Corporation
  235 Margaret King Avenue
  Ringwood, NJ 07456 USA
  +1-973-962-4014

1.4 Emergency telephone number
- Chem Tel Contract # MIS0000288
  +1-813-248-0585
  +1-800-255-3924

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture
- Product definition: Substance

Classification (Regulation (EC) No 1272/2008)
- Oxidizing solid - Category 1 [H271]
- Skin corrosion - Category 1B [H314]

2.2 Label Elements
- Labeling (Regulation (EC) No 1272/2008)
  Hazard Symbol(s):
  Signal Word:
  Hazard Statement(s):
    - H271 - May intensify fire; oxidizer
    - H314 - Causes severe skin burns and eye damage

Precautionary Statements:
[Prevention]
- P210 - Keep away from heat and hot surfaces.
- P220 - Keep away from combustible and incompatible materials (see Section 10.5).
- P221 - Take any precaution to avoid mixing with reducing agents, combustible materials, organic materials and water.
- P260 - Do not breathe dust or mist.
- P264 - Wash hands and other skin areas exposed to material thoroughly after handling.
- P280 - Wear protective gloves, protective clothing, eye protection and face protection.
- P283 - Wear fire retardant clothing.

[Response]
- P301 + P330 + P331 + P310 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.
- P303 + P361 + P350 - IF ON SKIN: Remove immediately all contaminated clothing. Rinse skin with water or shower.
- P304 + P340 + P310 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor.
- P305 + P351 + P338 + P310 - 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.
- P363 - Wash contaminated clothing before reuse.
- P321 - Specific treatment: Contact a POISON CENTER or doctor. Refer to Section 4 of this SDS.
- P370 + P378 - In case of fire: Use large amounts of water as extinguishing media. Use water only.
- P371 + P378 - In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

[Storage]
- P405 - Store locked up.

[Disposal]
- P501 - Dispose of contents in accordance with national and local regulations.
SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

<table>
<thead>
<tr>
<th>% by Weight</th>
<th>Ingredient</th>
<th>CAS Number</th>
<th>EC Number</th>
<th>Index Number</th>
<th>EC Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;95</td>
<td>Sodium Peroxide</td>
<td>1313-60-6</td>
<td>215-209-4</td>
<td>011-003-00-1</td>
<td>O, R8; C, R35</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to the health or the environment and hence require reporting in this section.

3.2 Mixtures

Chemical characterization (preparation)
Not applicable

SECTION 4 - FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: If product dust or vapor causes respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If unconscious, maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Immediately contact a doctor, paramedical personnel or poison center for instructions.

Eyes: Immediately flush eyes with large amounts of water or saline solution for 20 - 30 minutes, occasionally lifting the upper and lower lids. Remove contact lenses, if present and easy to do, after first 2 minutes and continue rinsing. Seek immediate medical advice, preferably from an ophthalmologist.

Skin: Flush skin with large amounts of water while removing contaminated clothing. Continue rinsing for at least 15 minutes or longer, depending on the concentration, amount and duration of exposure to the chemical. Get medical attention if irritation or pain persist. Wash contaminated clothing and shoes thoroughly before reuse.

Ingestion: Immediately call a POISON CENTER. Rinse mouth with water if victim is conscious. Remove dentures, if present. DO NOT induce vomiting. If conscious and alert and able to swallow, give 1 cupful of water to drink if victim is not experiencing respiratory distress. Never give anything by mouth to an unconscious person. Lay victim on side with the head lower than the waist to prevent aspiration of material during vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Potential health symptoms and effects

Eyes: Corrosive to eyes and surrounding tissue causing redness, swelling, pain, tearing, blurred vision and severe tissue burns. May cause chemical conjunctivitis, corneal damage or permanent eye damage.

Skin: Corrosive to skin. Symptoms include redness, pain, swelling, blistering and severe burns. Dusts and strong solutions may cause severe irritation and burns depending on concentration and exposure time.

Inhalation: May be irritating to the respiratory system. Mild exposure may cause cough and bronchospasm. Severe inhalation causes upper airway edema, wheezing and burns.

Ingestion: Causes burns to the mouth, throat and gastrointestinal tract. Symptoms may include sore throat, vomiting, diarrhea and perforation of the gastrointestinal tract accompanied by bleeding. Harmful if swallowed.

Chronic: Persons with pre-existing eye, skin and chronic respiratory disorders may be more susceptible to the effects of this material.

4.3 Indication of any immediate medical attention and special treatment needed

Advice to Doctor and Hospital Personnel:
Treat symptomatically and supportively.

SECTION 5 - FIRE FIGHTING MEASURES

5.1 Extinguishable media

Suitable methods of extinction: Use extinguishing media such as dry chemical, pulverized dolomite or sand.

Unsuitable methods of extinction: DO NOT USE WATER, CARBON DIOXIDE, HALOCARBON OR WET CHEMICAL extinguishers.

5.2 Special hazards arising from the substance or mixture

Strong oxidizer! Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Product is not combustible; however it is a strong oxidizer and its heat of reaction with reducing agents or combustible materials may cause ignition. Releases oxygen upon decomposition, which enhances combustion.

Closed containers may explode due to the buildup of pressure when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

Explosion hazards: Contact with combustible, organic or oxidizable materials may cause extremely violent combustion and explosion. May react explosively in contact with large amounts of water.

5.3 Advice for firefighters

Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion when exposed to extreme heat. Water contaminated by this material must be contained from being discharged to any waterway, sewer or drain to prevent environmental contamination.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust generation. Do not inhale dust. Ventilate the area. Evacuate non-essential personnel. Wear appropriate protective clothing designated in Section 8. Remove all sources of ignition.
6.2 Environmental precautions
Avoid dispersal of spilled material or run-off and prevent contact with soil and entry into drains, sewers or waterways.

6.3 Methods and materials for containment and cleaning up
Clean up spills immediately. Cover drains and contain spill. Minimize dust generation during clean-up. Carefully sweep, vacuum (with HEPA filter) or shovel up material and place into an approved container for proper disposal. Do not use combustible materials such as paper towels or straw brooms to clean up spills. Do not save material for reclamation. Cover with double volume of sand-soda ash mixture (90% - 10%). Mix thoroughly and break up any lumps. An alternative method is to use a plastic scoop to slowly add the mixture to a large volume of water with stirring. Neutralize with sulfuric acid. When settled decant the sulfate solution into the drain with excess water.

Observe possible material restrictions (Sections 7.2 and 10.5). Do NOT allow material or runoff from rinsing contaminated areas to enter floor drains or storm drains and ditches which lead to waterways. Dispose of waste via a licensed waste disposal contractor.

6.4 Reference to other sections
See Section 8 for information on appropriate personal protective equipment.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling
Wear all appropriate personal protective equipment specified in Section 8. Minimize dust generation. Do not get in eyes or on skin or clothing. Do not breathe dust. If normal use of material presents a respiratory hazard, use only adequate ventilation or wear an appropriate respirator.

Advice on protection against fire and explosion
Contact with combustible, organic or oxidizable materials may cause extremely violent combustion and explosion. May react explosively in contact with large amounts of water.

7.2 Conditions for safe storage, including any incompatibilities
Store in a dry, cool and well-ventilated area, away from combustible and incompatible materials, food and drink. Keep away from reducing agents. Keep away from heat and ignition sources. Avoid storage on wood floors.

Transfer only to approved containers having correct labeling. Protect containers against physical damage. Keep containers tightly closed and hermetically sealed or under a nitrogen blanked to keep moisture out. Containers that have been opened must be carefully resealed and kept upright to prevent spillage. Do not reuse empty containers as they may retain product residues (solids, dust). Ventilate closed areas. Avoid skin contact. Do not take internally. Keep locked up and out of reach of children.

7.3 Specific end uses
Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters
Contains no substances with occupational exposure values.

8.2 Exposure controls
Engineering measures: Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable. Refer to Section 7.1 for additional data.

Individual protection measures: Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

Hygiene measures: Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking or using the lavatory.

Eye/face protection: Wear protective goggles or safety glasses with non-perforated side shields and a face shield. Refer to 29 CFR 1910.133, ANSI Z87.4 or Standard EN 166.

Hand protection: Wear butyl rubber or neoprene gloves, or those recommended by glove supplier for protection against materials in Section 3. Gloves should be impermeable to chemicals and oil. Breakthrough time of gloves must be greater than the intended use period.

Other protective equipment: Protective clothing. Protective boots, if the situation requires.

Respiratory protection: Wear an approved filter type dust respirator when handling this product. Where risk assessment shows air-purifying respirators are appropriate use a full-faced respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Follow OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
- Appearance: Pale yellow, granular powder
- Odor: Odorless
- Odor Threshold: No data available
- Molecular Weight: 77.98
- Chemical Formula: Na2O2
- pH: ~7 (1% aqueous solution)
- Freezing/Melting Point, Range: 460 °C (860 °F)
- Initial Boiling Point: 657 °C (1,214.6 °F); decomposes
- Evaporation Rate: Not applicable
- Flammability (solid, gas): No data available
- Flash Point: Not applicable

Sodium Peroxide

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SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity
Reacts violently and explosively with water.

10.2 Chemical stability
This product is stable under recommended storage conditions, handling and use.

10.3 Possibility of hazardous reactions
Contact with combustible, organic or oxidizable materials may cause extremely violent combustion and explosion. May react explosively with large amounts of water.

10.4 Conditions to avoid
Heat, flames, sources of ignition and contact with incompatible and combustible materials. Avoid dust generation.

10.5 Incompatible materials
Moisture, organic and oxidizable substances, acetic acid, acetic anhydride, aluminum, aluminum plus carbon dioxide, ammonium persulfate, aniline, antimony, arsenic, benzene, boron nitride, calcium carbide, charcoal, dextrose plus potassium nitrate, diethyl ether, glycerin, hydrogen sulfide, hexamethylenetetramine, magnesium, magnesium plus carbon dioxide, manganese dioxide, organic matter, phosphorus, potassium selenium monochloride, silver chloride plus charcoal, sodium, sulfur monochloride, tin, zinc and reducing agents.

10.6 Hazardous decomposition products
Thermal decomposition products include oxygen, toxic oxides of sodium and metallic sodium fumes.

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Oral Toxicity
No data available

Acute Inhalation Toxicity
No data available

Acute Dermal Toxicity
No data available

Skin irritation/corrosion
Causes burns.

Eye irritation/corrosion
Causes severe eye irritation and burns, May cause serious eye damage.

Sensitization
No data available

Genotoxicity in vitro/ in vivo
No data available

Mutagenicity
No data available

Specific organ toxicity - single exposure
No data available

Specific organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

11.2 Further information
This material is not listed as a carcinogen by IARC, ACGIH, NTP or OSHA. No data is available regarding the mutagenicity or teratogenicity of this material in humans, nor is there available data that indicates that it causes adverse developmental or fertility effects in humans.
Handle in accordance with good industrial hygiene and safety practice.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity
No data available
12.2 Persistence and degradability
Inorganic substances are not biodegradable. Methods for the determination of biodegradability are not applicable to inorganic substances.

12.3 Bioaccumulation potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available.

12.6 Other adverse effects
Additional ecological information
Do not allow material to run into surface waters, wastewater or soil.
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Methods of disposal: The generation of waste should be avoided or minimized whenever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Hazardous waste: The classification of this product may meet the criteria for a hazardous waste.

SECTION 14 - TRANSPORT INFORMATION

Note: Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

US DOT (Domestic Ground Transportation)
Proper Shipping Name: Sodium Peroxide
Hazard Class: 5.1
UN/NA: UN1504
Packing Group: I
NAERO: Guide #144
Packaging Authorization: Non-Bulk: 49 CFR 173.211; Bulk: None
Packaging Exceptions: None

IMO/IMDG (Water Transportation)
Proper Shipping Name: Sodium Peroxide
Hazard Class: 5.1
UN/NA: UN1504
Packing Group: I
Marine Pollutant: No
EMS Number: F-G, S-Q

ICAO/IATA (Air Transportation)
Proper Shipping Name: Sodium Peroxide
Hazard Class: 5.1
UN/NA: UN1504
Packing Group: I
Quantity Limitations: 49 CFR 173.27 and 175.75 - Cargo Aircraft Only: 15 kg; Passenger Aircraft: Forbidden

RID/ADR (Rail Transportation)
Proper Shipping Name: Sodium Peroxide
Hazard Class: 5.1
UN/NA: UN1504
Packing Group: I
Not a marine pollutant

SECTION 15 - REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for substance or mixture
U. S. Federal Regulations
OSHA Hazard Communication Standard: This material is classified as hazardous in accordance with OSHA 29 CRF 1910.1200.
EPA Federal Insecticide, Fungicide and Rodenticide Act: This product is not a registered Pesticide under the FIFRA, 40 CFR Part 150.
TSCA Status: All components of this product are listed on the Toxic Substance Control Act (TSCA) Inventory. This material is not subject to TSCA 12(b) Export Notification.
Superfund Amendments and Reauthorization Act (SARA)
SARA 313 Information: None of the chemicals in this product are subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986.
SARA Section 311/312 Hazard Categories: Reactivity Hazard, Acute Health Hazard, Fire Hazard
SARA 302/304 Extremely Hazardous Substance: None of the chemicals in this product are subject to reporting requirements of these sections of Title III of SARA.
SARA 302/304 Emergency Planning & Notification: None of the chemicals in this product are subject to reporting requirements of these sections of Title III of SARA.
Comprehensive Response Compensation and Liability Act (CERCLA): This product contains no CERCLA reportable substances.

Clean Air Act (CAA)
This product does not contain any chemicals that are listed as Hazardous Air Pollutants (HAPs) designated in CAA Section 112 (b).
This product does not contain any Class 1 Ozone depletors.
This product does not contain any Class 2 Ozone depletors.
Clean Water Act (CWA)
None of the chemicals in this product are listed as Hazardous Substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

U.S. State Regulations
California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986:
None of the components in this product are known to the State of California to cause cancer or other reproductive harm.

Other U.S. State Inventories:
Sodium Peroxide (CAS #1313-60-6) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: MA, NJ, PA.

Canada
WHMIS Hazard Symbol and Classification: Not a controlled substance
Canadian Controlled Products Regulations (CPR): This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations, and the MSDS contains all the information required by the Controlled Products Regulations.
Canadian Ingredient Disclosure List (IDL): None of the substances in this product are listed on the IDL.
Canadian National Pollutant Release Inventory (NPRI): None of the substances in this product are listed on the NPRI.

European Economic Community
Labeling (67/548/EEC or 1999/45/EC)

Risk Phrases: R8 - Contact with combustible material may cause fire.
R35 - Causes severe burns.
Safety Phrases: S1/2 - Keep locked up and out of the reach of children.
S8 - Keep container dry.
S27 - Take off immediately all contaminated clothing.
S39 - Wear eye and face protection.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show SDS whenever possible).

WGK, Germany (Water danger/protection): 1

Global Chemical Inventory Lists

<table>
<thead>
<tr>
<th>Country</th>
<th>Inventory Name</th>
<th>Inventory Listing*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>Domestic Substance List (DSL).</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substance List (NDSL).</td>
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</tr>
<tr>
<td>Europe</td>
<td>Inventory of New and Existing Chemicals (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States</td>
<td>Toxic Substance Control Act (TSCA)</td>
<td>Yes</td>
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<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
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<tr>
<td>New Zealand</td>
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<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
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<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
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<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
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<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**"Yes" indicates that all components of this product are in compliance with the inventory requirements administered by the governing country.**

**"No" indicates that one or more components of this product are not on the inventory and are not exempt from listing.**

15.2 Chemical safety assessment
For this product a chemical safety assessment was not carried out.

SECTION 16 - OTHER INFORMATION

Hazardous Material Information System (HMIS)

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical Hazard</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>O</td>
<td>1</td>
<td>F</td>
</tr>
</tbody>
</table>

HMIS Hazard Rating Legend
* = Chronic Health Hazard  2 = MODERATE
0 = INSIGNIFICANT  3 = HIGH
1 = SLIGHT  4 = EXTREME

Sodium Peroxide

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