SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier
   Product Name: Potassium Iodide
   Product Codes(s): Potassium Iodide
   Synonyms: None
   REACH Registration Number: No data available

1.2 Relevant identified uses of the substance or mixture and uses advised against
   General Use: Material for use in industrial 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
   +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)
   Eye Irritant - Category 2A [H319]

2.2 Label Elements
   Labeling (Regulation (EC) No 1272/2008)
   Hazard Symbol(s): GHS07
   Signal Word: Warning
   Hazard Statement(s): H319 - Causes serious eye irritation
   Precautionary Statements:
   [Prevention] P264 - Wash hands and other skin areas exposed to material thoroughly after handling.
   P280 - Wear protective gloves, protective clothing and eye protection.
   [Response] 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.

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>98 - 100</td>
<td>Potassium Iodide</td>
<td>7681-11-0</td>
<td>231-659-4</td>
<td>--------------</td>
<td>Xi, R36</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 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. Loosen tight fitting clothing such as a collar, tie, belt or waistband. Seek medical attention if cough or other symptoms appear or persist.

   **Eyes:** Immediately flush eyes with large amounts of water for 15 minutes, occasionally lifting the upper and lower lids. Remove contact lenses, if present and easy to do, after the first 2 minutes and continue rinsing. Seek immediate medical attention, preferably from an ophthalmologist.
**SECTION 5 - FIRE FIGHTING MEASURES**

5.1 Extinguishable media

**Suitable methods of extinction:** Use extinguishing media such as water spray or fog, dry chemical, carbon dioxide or chemical foam.

**Unsuitable methods of extinction:** None known

5.2 Special hazards arising from the substance or mixture

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:** Not considered to be explosion hazard.

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 and accumulation. 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 runoff and prevent contact with soil and entry into drains, sewers or waterways.

6.3 Methods and materials for containment and cleaning up

Cover drains and contain spill. Sweep up, vacuum or shovel up material and place into an approved container for proper disposal. Observe possible material restrictions (Sections 7.2 and 10.5). Dispose of waste via a licensed waste disposal contractor.

6.4 Reference to other sections

See Section 13 for additional waste treatment information.

**SECTION 7 - HANDLING AND STORAGE**

7.1 Precautions for safe handling

Wear all appropriate personal protective equipment specified in Section 8. 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. Discard contaminated shoes.

**Advice on protection against fire and explosion**

Material does not present a fire or explosion hazard.

7.2 Conditions for safe storage, including any incompatibilities

Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10.5), food and drink. Do not store in direct sunlight. Transfer only to approved containers having correct labeling. Keep container tightly closed. Protect container against physical damage. Containers that have been opened must be carefully resealed and kept upright to prevent spillage. Containers of this material may be hazardous when empty since they retain product residues (dust, solids). Use appropriate containment to avoid environmental contamination. Ventilate closed areas. Do not take internally. Keep out of reach of children.

Prolonged storage is not recommended because of possible degradation problems including yellowing of potassium iodide.

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 limit 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 gloves 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White crystalline solid</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>166</td>
</tr>
<tr>
<td>Chemical Formula</td>
<td>KI</td>
</tr>
<tr>
<td>pH</td>
<td>7 - 9 (aqueous solution)</td>
</tr>
<tr>
<td>Freezing/Melting Point, Range</td>
<td>680 °C (1,256 °F)</td>
</tr>
<tr>
<td>Initial Boiling Point</td>
<td>1,330 °C (2,426 °F) @ 760 mm Hg</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Lower Explosive Limit (LEL)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Upper Explosive Limit (UEL)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>3.13</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>140 g/100g of water</td>
</tr>
<tr>
<td>Partition Coefficient: n-octanol/water</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Volatiles by Volume @ 70 °F</td>
<td>0%</td>
</tr>
</tbody>
</table>

9.2 Other data
No data available

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity
No special reactivity has been reported.

10.2 Chemical stability
This product is stable under recommended storage conditions, handling and use. On long exposure to air material becomes yellow due to the release of iodine. Moisture sensitive. Light sensitive.

10.3 Possibility of hazardous reactions
Reacts violently strong oxidizers.
Hazardous polymerization does not occur.

10.4 Conditions to avoid

10.5 Incompatible materials
Chloral hydrate, calomel, strong oxidizers, strong reducing agents, alkali metals, metal salts, ozone, perchloryl fluoride, charcoal, bromine trifluoride, chlorine trifluoride

10.6 Hazardous decomposition products
Thermal decomposition products include hydrogen iodide and oxides of potassium. Releases iodine gas on exposure to air.

Potassium Iodide

ALLAN CHEMICAL CORPORATION
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
May cause skin irritation

Eye irritation/corrosion
Causes eye irritation; particulates may cause corneal abrasion

Sensitization
May cause skin sensitization in sensitive individuals.

Genotoxicity in vitro & in vivo
In vitro testing: No induction of DNA
In vivo testing: No data available

Mutagenicity
Mutagenic effects have occurred in experimental animals.

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.

Exposure to excessive amounts of iodine during pregnancy is capable of producing fetal hypothyroidism. Iodine containing drugs have been associated with fetal goiter.

Prolonged exposure to iodides may produce iodism in sensitive individuals. Symptoms of exposure include skin rash, runny nose, headache and irritation of the mucous membrane. For severe cases the skin may show pimples, boils, hives, blisters and black and blue spots. Iodides are readily diffused across the placenta. Neonatal deaths from respiratory distress secondary to goiter have been reported. Iodides have been known to cause drug-induced fevers, which are usually of short duration.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity

Acute and prolonged toxicity to fish: LC50 - Oncorhynchus mykiss (Rainbow trout), 96 h: 2,190 mg/l
Acute toxicity to aquatic invertebrates: EC50 - Daphnia (Water flea), 24 h: 2.7 mg/l; immobilization

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

This material will not bioaccumulate.

12.4 Mobility in soil

This product has high mobility in soil.

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.
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 CFR 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 product 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 reporting requirements of Section 313 of the Emergency Planning and Community Right-to Know Act of 1986.
SARA Section 311/312 Hazard Categories: Acute Health Hazard, Chronic Health 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 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: This product contains no chemical(s) known to the State of California to cause cancer or other reproductive harm.

Other U. S. State Inventories:
This material is not listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists.

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): Potassium Iodide (CAS #7681-11-0) is 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)

Xi - Irritant

Risk Phrases: R36 - Irritating to eyes.
Safety Phrases: S2 - Keep out of the reach of children.
S22 - Do not breathe dust.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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>
<td>No</td>
</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>
</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.
Global Chemical Inventory Lists (continued)

<table>
<thead>
<tr>
<th>Country</th>
<th>Inventory Name</th>
<th>Inventory Listing*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory of Chemicals (NZIoC)</td>
<td>Yes</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCCS)</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></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

HMIS & NFPA Hazard Rating Legend

- * = Chronic Health Hazard
- 1 = SLIGHT
- 2 = MODERATE
- 3 = HIGH
- 4 = EXTREME

National Fire Protection Association (NFPA)

<table>
<thead>
<tr>
<th>Flammability</th>
<th>Health</th>
<th>Instability</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

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