

## SECTION 1: Identification

### 1.1. Identification

Product form : Mixtures  
 Product name : Iodine, 0.0167N (0.0084M)  
 Product code : LC15605

### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : For laboratory and manufacturing use only.  
 Recommended use : Laboratory chemicals  
 Restrictions on use : Not for food, drug or household use

### 1.3. Supplier

LabChem Inc  
 Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court  
 Zelienople, PA 16063 - USA  
 T 412-826-5230 - F 724-473-0647  
[info@labchem.com](mailto:info@labchem.com) - [www.labchem.com](http://www.labchem.com)

### 1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 or 011-703-527-3887

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

#### GHS-US classification

Hazardous to the aquatic environment - Acute H402 Harmful to aquatic life  
 Hazard Category 3  
 Full text of H statements : see section 16

### 2.2. GHS Label elements, including precautionary statements

#### GHS-US labeling

Hazard statements (GHS-US) : H402 - Harmful to aquatic life  
 Precautionary statements (GHS-US) : P273 - Avoid release to the environment  
 P501 - Dispose of contents/container to comply with local, state and federal regulations

### 2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : None.

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name                       | Product identifier  | %     | GHS-US classification                                                                                                                                     |
|----------------------------|---------------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Water                      | (CAS-No.) 7732-18-5 | 99.35 | Not classified                                                                                                                                            |
| Potassium Iodide           | (CAS-No.) 7681-11-0 | 0.42  | Aquatic Acute 2, H401                                                                                                                                     |
| Iodine                     | (CAS-No.) 7553-56-2 | 0.21  | Acute Tox. 3 (Dermal), H311<br>Acute Tox. 4 (Inhalation), H332<br>Skin Corr. 1C, H314<br>Eye Dam. 1, H318<br>Skin Sens. 1B, H317<br>Aquatic Acute 1, H400 |
| Hydrochloric Acid, 37% w/w | (CAS-No.) 7647-01-0 | 0.02  | Acute Tox. 4 (Oral), H302<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>STOT SE 3, H335<br>Aquatic Acute 3, H402                                          |

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Full text of hazard classes and H-statements : see section 16

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

|                                       |                                                                                                                                   |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| First-aid measures general            | : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). |
| First-aid measures after inhalation   | : Allow victim to breathe fresh air. Allow the victim to rest.                                                                    |
| First-aid measures after skin contact | : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.                 |
| First-aid measures after eye contact  | : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.                         |
| First-aid measures after ingestion    | : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.                                                        |

#### 4.2. Most important symptoms and effects (acute and delayed)

|                  |                                                                                            |
|------------------|--------------------------------------------------------------------------------------------|
| Symptoms/effects | : Not expected to present a significant hazard under anticipated conditions of normal use. |
|------------------|--------------------------------------------------------------------------------------------|

#### 4.3. Immediate medical attention and special treatment, if necessary

Obtain medical assistance.

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

|                                |                                                        |
|--------------------------------|--------------------------------------------------------|
| Suitable extinguishing media   | : Foam. Dry powder. Carbon dioxide. Water spray. Sand. |
| Unsuitable extinguishing media | : Do not use a heavy water stream.                     |

#### 5.2. Specific hazards arising from the chemical

|                  |                   |
|------------------|-------------------|
| Fire hazard      | : Not flammable.  |
| Explosion hazard | : Not applicable. |

#### 5.3. Special protective equipment and precautions for fire-fighters

|                                |                                                                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Firefighting instructions      | : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. |
| Protection during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection.                                                                   |

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

|                      |                                   |
|----------------------|-----------------------------------|
| Protective equipment | : Safety glasses. Gloves.         |
| Emergency procedures | : Evacuate unnecessary personnel. |

##### 6.1.2. For emergency responders

|                      |                                              |
|----------------------|----------------------------------------------|
| Protective equipment | : Equip cleanup crew with proper protection. |
| Emergency procedures | : Ventilate area.                            |

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

|                         |                                                                                                                                                |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Methods for cleaning up | : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

|                               |                                                                                                                                                                                                 |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling | : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. |
| Hygiene measures              | : Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.                                                                                                  |

#### 7.2. Conditions for safe storage, including any incompatibilities

|                    |                                          |
|--------------------|------------------------------------------|
| Storage conditions | : Keep container closed when not in use. |
|--------------------|------------------------------------------|

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Incompatible products : Strong reducing agents. Ammonia. Acetaldehyde. metals. Strong bases.  
Incompatible materials : Direct sunlight.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

| Iodine (7553-56-2)                     |                             |                              |
|----------------------------------------|-----------------------------|------------------------------|
| ACGIH                                  | ACGIH TWA (mg/m³)           | 0.1 mg/m³ Inhalable fraction |
| ACGIH                                  | ACGIH TWA (ppm)             | 0.01 ppm Inhalable fraction  |
| ACGIH                                  | ACGIH STEL (mg/m³)          | 1 mg/m³                      |
| ACGIH                                  | ACGIH STEL (ppm)            | 0.1 ppm                      |
| OSHA                                   | OSHA PEL (Ceiling) (mg/m³)  | 1 mg/m³                      |
| OSHA                                   | OSHA PEL (Ceiling) (ppm)    | 0.1 ppm                      |
| IDLH                                   | US IDLH (ppm)               | 2 ppm                        |
| NIOSH                                  | NIOSH REL (ceiling) (mg/m³) | 1 mg/m³                      |
| NIOSH                                  | NIOSH REL (ceiling) (ppm)   | 0.1 ppm                      |
| Potassium Iodide (7681-11-0)           |                             |                              |
| ACGIH                                  | ACGIH TWA (ppm)             | 0.01 ppm Inhalable fraction  |
| Water (7732-18-5)                      |                             |                              |
| Not applicable                         |                             |                              |
| Hydrochloric Acid, 37% w/w (7647-01-0) |                             |                              |
| ACGIH                                  | ACGIH Ceiling (mg/m³)       | 2.98 mg/m³                   |
| ACGIH                                  | ACGIH Ceiling (ppm)         | 2 ppm                        |
| OSHA                                   | OSHA PEL (Ceiling) (mg/m³)  | 7 mg/m³                      |
| OSHA                                   | OSHA PEL (Ceiling) (ppm)    | 5 ppm                        |
| IDLH                                   | US IDLH (ppm)               | 50 ppm                       |
| NIOSH                                  | NIOSH REL (ceiling) (mg/m³) | 7 mg/m³                      |
| NIOSH                                  | NIOSH REL (ceiling) (ppm)   | 5 ppm                        |

#### 8.2. Appropriate engineering controls

Appropriate engineering controls : Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.

#### 8.3. Individual protection measures/Personal protective equipment

##### Personal protective equipment:

Safety glasses.



##### Hand protection:

Wear protective gloves

##### Eye protection:

Chemical goggles or safety glasses

##### Respiratory protection:

Wear appropriate mask

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### Other information:

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                                             |                        |
|---------------------------------------------|------------------------|
| Physical state                              | : Liquid               |
| Color                                       | : amber                |
| Odor                                        | : characteristic       |
| Odor threshold                              | : No data available    |
| pH                                          | : No data available    |
| Melting point                               | : No data available    |
| Freezing point                              | : No data available    |
| Boiling point                               | : No data available    |
| Flash point                                 | : No data available    |
| Relative evaporation rate (butyl acetate=1) | : No data available    |
| Flammability (solid, gas)                   | : Non flammable.       |
| Vapor pressure                              | : No data available    |
| Relative vapor density at 20 °C             | : No data available    |
| Relative density                            | : No data available    |
| Solubility                                  | : Miscible with water. |
| Log Pow                                     | : No data available    |
| Auto-ignition temperature                   | : No data available    |
| Decomposition temperature                   | : No data available    |
| Viscosity, kinematic                        | : No data available    |
| Viscosity, dynamic                          | : No data available    |
| Explosion limits                            | : No data available    |
| Explosive properties                        | : Not applicable.      |
| Oxidizing properties                        | : No data available.   |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions. Not established.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

metals. Strong reducing agents. Ammonia. Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Iodine vapor. Potassium oxide. Hydrogen chloride.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

|                           |                                    |
|---------------------------|------------------------------------|
| Likely routes of exposure | : Inhalation; Skin and eye contact |
| Acute toxicity            | : Not classified                   |

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| Iodine (7553-56-2)  |                         |
|---------------------|-------------------------|
| LD50 oral rat       | 14000 mg/kg             |
| ATE US (oral)       | 14000 mg/kg body weight |
| ATE US (dermal)     | 220 mg/kg body weight   |
| ATE US (dust, mist) | 1.5 mg/l/4h             |

| Water (7732-18-5) |                         |
|-------------------|-------------------------|
| LD50 oral rat     | ≥ 90000 mg/kg           |
| ATE US (oral)     | 90000 mg/kg body weight |

| Hydrochloric Acid, 37% w/w (7647-01-0) |                        |
|----------------------------------------|------------------------|
| LD50 oral rat                          | 700 mg/kg              |
| LD50 dermal rabbit                     | 5010 mg/kg             |
| ATE US (oral)                          | 700 mg/kg body weight  |
| ATE US (dermal)                        | 5010 mg/kg body weight |

|                                   |                  |
|-----------------------------------|------------------|
| Skin corrosion/irritation         | : Not classified |
| Serious eye damage/irritation     | : Not classified |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity            | : Not classified |
| Carcinogenicity                   | : Not classified |

| Hydrochloric Acid, 37% w/w (7647-01-0) |                      |
|----------------------------------------|----------------------|
| IARC group                             | 3 - Not classifiable |

|                                                  |                  |
|--------------------------------------------------|------------------|
| Reproductive toxicity                            | : Not classified |
| Specific target organ toxicity – single exposure | : Not classified |

|                                                    |                  |
|----------------------------------------------------|------------------|
| Specific target organ toxicity – repeated exposure | : Not classified |
|----------------------------------------------------|------------------|

|                   |                  |
|-------------------|------------------|
| Aspiration hazard | : Not classified |
|-------------------|------------------|

|                                                     |                                                                     |
|-----------------------------------------------------|---------------------------------------------------------------------|
| Potential Adverse human health effects and symptoms | : Based on available data, the classification criteria are not met. |
|-----------------------------------------------------|---------------------------------------------------------------------|

## SECTION 12: Ecological information

### 12.1. Toxicity

|                 |                            |
|-----------------|----------------------------|
| Ecology - water | : Harmful to aquatic life. |
|-----------------|----------------------------|

| Iodine, 0.0167N (0.0084M) |           |
|---------------------------|-----------|
| EC50 Daphnia 1            | 94.3 mg/l |

| Iodine (7553-56-2) |          |
|--------------------|----------|
| LC50 fish 1        | 1.7 mg/l |
| EC50 Daphnia 1     | 0.2 mg/l |

| Potassium Iodide (7681-11-0) |                 |
|------------------------------|-----------------|
| LC50 fish 1                  | 3200 mg/l 120 h |
| EC50 Daphnia 1               | 2.7 mg/l 24 h   |

| Hydrochloric Acid, 37% w/w (7647-01-0) |                        |
|----------------------------------------|------------------------|
| LC50 fish 1                            | 282 mg/l (LC50; 96 h)  |
| EC50 Daphnia 1                         | < 56 mg/l (EC50; 72 h) |

### 12.2. Persistence and degradability

| Iodine, 0.0167N (0.0084M)     |                  |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

| Iodine (7553-56-2)            |                  |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

| Potassium Iodide (7681-11-0)  |                  |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

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| Water (7732-18-5)                      |                                                                                         |
|----------------------------------------|-----------------------------------------------------------------------------------------|
| Persistence and degradability          | Not established.                                                                        |
| Hydrochloric Acid, 37% w/w (7647-01-0) |                                                                                         |
| Persistence and degradability          | Biodegradability: not applicable. No test data on mobility of the components available. |
| Biochemical oxygen demand (BOD)        | Not applicable                                                                          |
| Chemical oxygen demand (COD)           | Not applicable                                                                          |
| ThOD                                   | Not applicable                                                                          |

### 12.3. Bioaccumulative potential

| Iodine, 0.0167N (0.0084M)              |                                                  |
|----------------------------------------|--------------------------------------------------|
| Bioaccumulative potential              | Not established.                                 |
| Iodine (7553-56-2)                     |                                                  |
| Log Pow                                | 2.49                                             |
| Bioaccumulative potential              | Not established.                                 |
| Potassium Iodide (7681-11-0)           |                                                  |
| Bioaccumulative potential              | Not established.                                 |
| Water (7732-18-5)                      |                                                  |
| Bioaccumulative potential              | Not established.                                 |
| Hydrochloric Acid, 37% w/w (7647-01-0) |                                                  |
| Log Pow                                | 0.25 (QSAR)                                      |
| Bioaccumulative potential              | Low potential for bioaccumulation (Log Kow < 4). |

### 12.4. Mobility in soil

| Hydrochloric Acid, 37% w/w (7647-01-0) |                                                               |
|----------------------------------------|---------------------------------------------------------------|
| Ecology - soil                         | May be harmful to plant growth, blooming and fruit formation. |

### 12.5. Other adverse effects

|                              |                                       |
|------------------------------|---------------------------------------|
| Effect on the global warming | : No known effects from this product. |
| GWPmix comment               | : No known effects from this product. |
| Other information            | : Avoid release to the environment.   |

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

|                                |                                                                                                                                                              |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Waste disposal recommendations | : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with local, state and federal regulations. |
| Ecology - waste materials      | : Avoid release to the environment.                                                                                                                          |

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT  
Not regulated

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

|                            |                   |       |
|----------------------------|-------------------|-------|
| Hydrochloric Acid, 37% w/w | CAS-No. 7647-01-0 | 0.02% |
|----------------------------|-------------------|-------|

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|                                                              |                                                                                        |
|--------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>Iodine (7553-56-2)</b>                                    |                                                                                        |
| SARA Section 311/312 Hazard Classes                          | Immediate (acute) health hazard<br>Delayed (chronic) health hazard                     |
| <b>Potassium Iodide (7681-11-0)</b>                          |                                                                                        |
| SARA Section 311/312 Hazard Classes                          | Immediate (acute) health hazard<br>Delayed (chronic) health hazard                     |
| <b>Hydrochloric Acid, 37% w/w (7647-01-0)</b>                |                                                                                        |
| EPA TSCA Regulatory Flag                                     | T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA. |
| RQ (Reportable quantity, section 304 of EPA's List of Lists) | 5000 lb                                                                                |
| SARA Section 302 Threshold Planning Quantity (TPQ)           | 500 lb                                                                                 |
| SARA Section 311/312 Hazard Classes                          | Immediate (acute) health hazard                                                        |

### 15.2. International regulations

#### CANADA

|                                                       |  |
|-------------------------------------------------------|--|
| <b>Iodine (7553-56-2)</b>                             |  |
| Listed on the Canadian DSL (Domestic Substances List) |  |
| <b>Potassium Iodide (7681-11-0)</b>                   |  |
| Listed on the Canadian DSL (Domestic Substances List) |  |

#### EU-Regulations

No additional information available

#### National regulations

|                                                         |  |
|---------------------------------------------------------|--|
| <b>Iodine (7553-56-2)</b>                               |  |
| Listed on the Canadian IDL (Ingredient Disclosure List) |  |
| <b>Potassium Iodide (7681-11-0)</b>                     |  |
| Listed on the Canadian IDL (Ingredient Disclosure List) |  |

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

## SECTION 16: Other information

Revision date : 11/01/2017  
Other information : None.

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Full text of H-phrases: see section 16:

|      |                                         |
|------|-----------------------------------------|
| H302 | Harmful if swallowed                    |
| H311 | Toxic in contact with skin              |
| H314 | Causes severe skin burns and eye damage |
| H317 | May cause an allergic skin reaction     |
| H318 | Causes serious eye damage               |
| H332 | Harmful if inhaled                      |
| H335 | May cause respiratory irritation        |
| H400 | Very toxic to aquatic life              |
| H401 | Toxic to aquatic life                   |
| H402 | Harmful to aquatic life                 |

NFPA health hazard

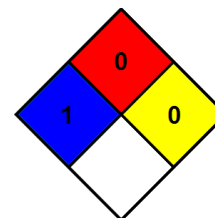
: 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard

: 0 - Materials that will not burn under typical dire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health

: 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability

: 0 Minimal Hazard - Materials that will not burn

Physical

: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection

: B

B - Safety glasses, Gloves

SDS US LabChem

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