

**SAFETY DATA SHEET**  
**POTASSIUM IODIDE LRG**

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

|                           |                       |
|---------------------------|-----------------------|
| Product name              | POTASSIUM IODIDE LRG  |
| Product number            | 1535                  |
| REACH registration number | 01-2119966161-40-0000 |
| CAS number                | 7681-11-0             |
| EC number                 | 231-659-4             |
| Formula                   | KI                    |

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

|                      |  |
|----------------------|--|
| Identified uses      | Laboratory reagent.                              |
| Uses advised against | No specific uses advised against are identified. |

**1.3. Details of the supplier of the safety data sheet****Supplier**

Reagent Chemical Services  
18 Aston Fields Road  
Whitehouse Industrial Estate  
Runcorn  
Cheshire WA7 3DL

T: 01928 716903 (08.30 - 17.00)  
F: 01928 716425  
E: [info@reagent.co.uk](mailto:info@reagent.co.uk)

**1.4. Emergency telephone number**

|                     |   |
|---------------------|---|
| Emergency telephone | OHES Environmental Ltd 24-7<br>Tel. 0333 333 9939 (24 hour) |
|---------------------|---|

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification (EC 1272/2008)**

|                       |  |
|-----------------------|--|
| Physical hazards      | Not Classified   |
| Health hazards        | Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 |
| Environmental hazards | Not Classified   |

Classification (67/548/EEC or 1999/45/EC) -

**2.2. Label elements**

## POTASSIUM IODIDE LRG

**EC number** 231-659-4

**Pictogram**



**Signal word** Warning

**Hazard statements**  
 H302+H312 Harmful if swallowed or in contact with skin.  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.

**Precautionary statements**  
 P264 Wash contaminated skin thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P312 Call a POISON CENTER/ doctor if you feel unwell.  
 P321 Specific treatment (see medical advice on this label).  
 P330 Rinse mouth.  
 P332+P313 If skin irritation occurs: Get medical advice/ attention.  
 P337+P313 If eye irritation persists: Get medical advice/ attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P501 Dispose of contents/ container in accordance with national regulations.

### 2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

**Product name** POTASSIUM IODIDE LRG  
**REACH registration number** 01-2119966161-40-0000  
**CAS number** 7681-11-0  
**EC number** 231-659-4

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General information** Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.

**Inhalation** Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.

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|                                   |  |
|-----------------------------------|--|
| <b>Ingestion</b>                  | Rinse mouth thoroughly with water. Remove any dentures. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. |
| <b>Skin contact</b>               | Brush off loose particles from skin. Take off immediately all contaminated clothing. Remove contamination with soap and water or recognised skin cleansing agent. Get medical attention.   |
| <b>Eye contact</b>                | Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 10 minutes.   |
| <b>Protection of first aiders</b> | First aid personnel should wear appropriate protective equipment during any rescue. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.   |

### 4.2. Most important symptoms and effects, both acute and delayed

|                            |  |
|----------------------------|--|
| <b>General information</b> | See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure. |
| <b>Inhalation</b>          | Dust may irritate the respiratory system. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.                         |
| <b>Ingestion</b>           | May cause discomfort if swallowed. Stomach pain. Nausea, vomiting.   |
| <b>Skin contact</b>        | Redness. Irritating to skin.   |
| <b>Eye contact</b>         | Irritating to eyes.  |

### 4.3. Indication of any immediate medical attention and special treatment needed

|                             |                        |
|-----------------------------|------------------------|
| <b>Notes for the doctor</b> | Treat symptomatically. |
|-----------------------------|------------------------|

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

|                                       |  |
|---------------------------------------|--|
| <b>Suitable extinguishing media</b>   | The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire. |
| <b>Unsuitable extinguishing media</b> | Do not use water jet as an extinguisher, as this will spread the fire.   |

### 5.2. Special hazards arising from the substance or mixture

|                                      |   |
|--------------------------------------|---|
| <b>Specific hazards</b>              | This product is toxic.  |
| <b>Hazardous combustion products</b> | Thermal decomposition or combustion products may include the following substances: Toxic gases or vapours. Irritating gases or vapours. |

### 5.3. Advice for firefighters

|   |  |
|---|--|
| <b>Protective actions during firefighting</b> | Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities. |
|---|--|

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**Special protective equipment for firefighters** Wear chemical protective suit. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

### SECTION 6: Accidental release measures

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

**Personal precautions** No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material. Avoid contact with skin and eyes.

#### 6.2. Environmental precautions

**Environmental precautions** Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

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

**Methods for cleaning up** Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Provide adequate ventilation. Approach the spillage from upwind. Avoid generation and spreading of dust. Small Spillages: Remove spillage with vacuum cleaner or collect with a shovel and broom, or similar. Large Spillages: Collect spillage with a shovel and broom, or similar and reuse, if possible. Collect and place in suitable waste disposal containers and seal securely. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. The requirements of the local water authority must be complied with if contaminated water is flushed directly to the sewer. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

#### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Usage precautions** Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Keep container tightly sealed when not in use. Avoid handling which leads to dust formation. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.

**Advice on general occupational hygiene** Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

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

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**Storage precautions** Store in accordance with local regulations. Store away from the following materials: Acids. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

**Storage class** Toxic storage.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

**DNEL**  
 Workers - Inhalation; Long term systemic effects: 0.07 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 1 mg/kg/day  
 General population - Inhalation; Long term systemic effects: 0.035 mg/m<sup>3</sup>  
 General population - Dermal; Long term systemic effects: 1 mg/kg  
 General population - Oral; Long term systemic effects: 0.01 mg/kg/day

**PNEC**  
 - Fresh water; 0.007 mg/l  
 - Intermittent release; 0.075 mg/l  
 - Sediment (Freshwater); 0.007 mg/kg

### 8.2. Exposure controls

#### Protective equipment



#### Appropriate engineering controls

Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimise exposure.

#### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

#### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

#### Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

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|  |   |
|--|---|
| <b>Hygiene measures</b>                | Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.  |
| <b>Respiratory protection</b>          | Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m <sup>3</sup> . Wear a suitable dust mask. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with European Standard EN14387. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140. |
| <b>Environmental exposure controls</b> | Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.   |

### SECTION 9: Physical and Chemical Properties

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

|  |   |
|--|---|
| <b>Appearance</b>                      | Solid                                   |
| <b>Colour</b>                          | Colourless.                             |
| <b>Odour</b>                           | Odourless.                              |
| <b>pH</b>                              | pH (diluted solution): About 6.9 5      |
| <b>Melting point</b>                   | 686°C                                   |
| <b>Initial boiling point and range</b> | 1330°C @                                |
| <b>Vapour pressure</b>                 | 1 mm Hg @ 745°C                         |
| <b>Relative density</b>                | 3.213 @ 25°C                            |
| <b>Solubility(ies)</b>                 | Soluble in water. 1260 g/l water @ 25°C |
| <b>Partition coefficient</b>           | Scientifically unjustified.             |

#### 9.2. Other information

|                          |       |
|--------------------------|-------|
| <b>Other information</b> | None. |
|--------------------------|-------|

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

|                   |  |
|-------------------|--|
| <b>Reactivity</b> | Can react to form other iodides or iodine. |
|-------------------|--|

#### 10.2. Chemical stability

|                  |   |
|------------------|---|
| <b>Stability</b> | Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions. |
|------------------|---|

#### 10.3. Possibility of hazardous reactions

|   |   |
|---|---|
| <b>Possibility of hazardous reactions</b> | Produces metallic mercury on reaction with mercurous chloride. Liberates iodine in presence of acids. |
|---|---|

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### 10.4. Conditions to avoid

**Conditions to avoid** Avoid exposure to high temperatures or direct sunlight. Avoid contact with moisture. Avoid freezing.

### 10.5. Incompatible materials

**Materials to avoid** Acids. Mercury compounds.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Toxic gases or vapours.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Other health effects** Risk of sensitisation and allergic reactions among sensitive individuals.

#### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** Acute Tox. 4 - H302 Harmful if swallowed.

**ATE oral (mg/kg)** 500.0

#### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Acute Tox. 4 - H312 Harmful in contact with skin.

#### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Based on available data the classification criteria are not met.

#### Skin corrosion/irritation

**Animal data** Irritating.

#### Serious eye damage/irritation

**Serious eye damage/irritation** Causes serious eye irritation.

#### Respiratory sensitisation

**Respiratory sensitisation** Based on available data the classification criteria are not met.

#### Skin sensitisation

**Skin sensitisation** Based on available data the classification criteria are not met.

#### Germ cell mutagenicity

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

#### Carcinogenicity

**Carcinogenicity** Based on available data the classification criteria are not met.

#### IARC carcinogenicity

None of the ingredients are listed or exempt.

#### Reproductive toxicity

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

**Reproductive toxicity - development**

Based on available data the classification criteria are not met.

#### Specific target organ toxicity - single exposure

**STOT - single exposure** Not classified as a specific target organ toxicant after a single exposure.

#### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Not classified as a specific target organ toxicant after repeated exposure.

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### Aspiration hazard

**Aspiration hazard** Not relevant. Solid.

### **General information**

Dust may irritate the eyes and the respiratory system. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

### **Inhalation**

Dust may irritate the respiratory system.

### **Ingestion**

May cause discomfort if swallowed. Stomach pain. Nausea, vomiting.

### **Skin contact**

Redness. Irritating to skin.

### **Eye contact**

Irritating to eyes.

### **Route of entry**

Ingestion Inhalation Skin and/or eye contact

### **Target organs**

No specific target organs known.

## SECTION 12: Ecological Information

### **Ecotoxicity**

Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

### 12.1. Toxicity

#### **Toxicity**

Based on available data the classification criteria are not met.

#### **Acute toxicity - fish**

LC<sub>50</sub>, 96 hours: 3780 mg/l, *Onchorhynchus mykiss* (Rainbow trout)

#### **Acute toxicity - aquatic invertebrates**

EC<sub>50</sub>, 48 hours: 7.5 mg/l, *Daphnia magna*

### 12.2. Persistence and degradability

#### **Persistence and degradability**

The degradability of the product is not known.

#### **Stability (hydrolysis)**

Scientifically unjustified.

#### **Biodegradation**

Scientifically unjustified.

### 12.3. Bioaccumulative potential

#### **Bioaccumulative potential**

No data available on bioaccumulation.

#### **Partition coefficient**

Scientifically unjustified.

### 12.4. Mobility in soil

#### **Mobility**

The product is water-soluble and may spread in water systems.

#### **Adsorption/desorption coefficient**

Scientifically unjustified.

### 12.5. Results of PBT and vPvB assessment

#### **Results of PBT and vPvB assessment**

This substance is not classified as PBT or vPvB according to current EU criteria.

### 12.6. Other adverse effects

#### **Other adverse effects**

None known.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods



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**General information** The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

**Disposal methods** Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Incineration or landfill should only be considered when recycling is not feasible.

### SECTION 14: Transport information

**Road transport notes** Not regulated.

**Rail transport notes** Not regulated.

**Sea transport notes** Not regulated.

**Air transport notes** Not regulated.

#### 14.1. UN number

Not applicable.

#### 14.2. UN proper shipping name

Not applicable.

#### 14.3. Transport hazard class(es)

No transport warning sign required.

#### 14.4. Packing group

Not applicable.

#### 14.5. Environmental hazards

**Environmentally hazardous substance/marine pollutant**

No.

#### 14.6. Special precautions for user

Not applicable.

#### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

**Transport in bulk according to** Not applicable.

**Annex II of MARPOL 73/78  
and the IBC Code**

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### **National regulations**

Health and Safety at Work etc. Act 1974 (as amended).

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].

EH40/2005 Workplace exposure limits.

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|                       |  |
|-----------------------|--|
| <b>EU legislation</b> | Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).<br>Commission Regulation (EU) No 453/2010 of 20 May 2010.<br>Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). |
| <b>Guidance</b>       | ECHA Guidance on the compilation of safety data sheets 2014.<br>Workplace Exposure Limits EH40.  |

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

### Inventories

#### **US - TSCA**

None of the ingredients are listed or exempt.

#### **US - TSCA 12(b) Export Notification**

None of the ingredients are listed or exempt.

### **SECTION 16: Other information**

|   |   |
|---|---|
| <b>General information</b>  | Under REACH Material Safety Datasheets (MSDS) are referred to as Safety Datasheets (SDS).   |
| <b>Classification procedures according to Regulation (EC) 1272/2008</b> | Acute Tox. 4 - H312: Acute Tox. 4 - H302: Skin Irrit. 2 - H315: Eye Irrit. 2 - H319: : Expert judgement.                                |
| <b>Training advice</b>  | Read and follow manufacturer's recommendations. Only trained personnel should use this material.  |
| <b>Revision comments</b>  | General rewrite   |
| <b>Revision date</b>  | 11/08/2015  |
| <b>Revision</b>   | 1   |
| <b>SDS number</b>   | 20461   |
| <b>Risk phrases in full</b>   | Not classified.   |
| <b>Hazard statements in full</b>  | H302 Harmful if swallowed.<br>H312 Harmful in contact with skin.<br>H315 Causes skin irritation.<br>H319 Causes serious eye irritation. |

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.