

Creation Date Oct-2013

Revision Date Oct-2018

Revision Number 2

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identification

|                           |  |
|---------------------------|--|
| Product Description:      | <b>Potassium carbonate</b>                           |
| Product Grade:            | SQ   |
| Cat No. :                 | Q19275, Q1927E                                       |
| Synonyms                  | Potash; Pearl ash; Dipotassium salt of carbonic acid |
| CAS-No                    | 584-08-7   |
| EC-No.                    | 209-529-3  |
| Molecular Formula         | C K2 O3  |
| Reach Registration Number | 01-2119532646-36                                     |

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

|                      |                          |
|----------------------|--------------------------|
| Recommended Use      | Laboratory chemicals.    |
| Uses advised against | No Information available |

### 1.3. Details of the supplier of the safety data sheet

|                |  |
|----------------|--|
| Company        | Thermo Fisher Scientific India Pvt. Ltd<br>403-404, B-wing, Delphi, Hiranandani Business Park,<br>Powai, Mumbai 400076, INDIA. |
| E-mail address | <a href="mailto:laboratorysolutions@thermofisher.com">laboratorysolutions@thermofisher.com</a>                                 |

### 1.4. Emergency telephone number

India Toll Free: 18 00 22 22 30  
Chemtrec US: (800)424-9300  
Chemtrec EU: 001(202)483-7616

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

#### CLP Classification - Regulation (EC) No 1272/2008

##### Physical hazards

Based on available data, the classification criteria are not met

##### Health hazards

|  |            |
|--|------------|
| Skin Corrosion/irritation                          | Category 2 |
| Serious Eye Damage/Eye Irritation                  | Category 2 |
| Specific target organ toxicity - (single exposure) | Category 3 |

##### Environmental hazards

Based on available data, the classification criteria are not met

### 2.2. Label elements

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Signal Word

Warning

## Hazard Statements

- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H335 - May cause respiratory irritation

## Precautionary Statements

- P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
- P264 - Wash face, hands and any exposed skin thoroughly after handling
- P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

## 2.3. Other hazards

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB)

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

| Component           | CAS-No   | EC-No.            | Weight % | CLP Classification - Regulation (EC) No 1272/2008               |
|---------------------|----------|-------------------|----------|---|
| Potassium carbonate | 584-08-7 | EEC No. 209-529-3 | >95      | Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)<br>STOT SE 3 (H335) |

|                           |                  |
|---------------------------|------------------|
| Reach Registration Number | 01-2119532646-36 |
|---------------------------|------------------|

Full text of Hazard Statements: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

|                            |  |
|----------------------------|--|
| Eye Contact                | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if symptoms occur.                |
| Skin Contact               | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.                                      |
| Ingestion                  | Do not induce vomiting. Get medical attention if symptoms occur.   |
| Inhalation                 | Move to fresh air. If breathing is difficult, give oxygen. If symptoms arise, call a physician.  |
| Protection of First-aiders | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. |

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

No information available.

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

### Notes to Physician

Treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### Suitable Extinguishing Media

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

#### Extinguishing media which must not be used for safety reasons

No information available.

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

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

#### Hazardous Combustion Products

Potassium oxides, Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>).

### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes and clothing.

### 6.2. Environmental precautions

Avoid release to the environment. See Section 12 for additional ecological information.

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

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

### 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin and eyes. Do not breathe dust. Do not ingest.

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday.

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

Keep containers tightly closed in a dry, cool and well-ventilated place.

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## 7.3. Specific end use(s)

Use in laboratories

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure limits

List source(s):

| Component           | Bulgaria | Croatia | Ireland | Cyprus | Czech Republic   |
|---------------------|----------|---------|---------|--------|--|
| Potassium carbonate |          |         |         |        | TWA: 5 mg/m <sup>3</sup> 8<br>hodinách.<br>Ceiling: 10 mg/m <sup>3</sup> |

| Component           | Latvia                   | Lithuania                     | Luxembourg | Malta | Romania |
|---------------------|--------------------------|-------------------------------|------------|-------|---------|
| Potassium carbonate | TWA: 2 mg/m <sup>3</sup> | TWA: 2 mg/m <sup>3</sup> IPRD |            |       |         |

| Component           | Russia                   | Slovak Republic | Slovenia | Sweden | Turkey |
|---------------------|--------------------------|-----------------|----------|--------|--------|
| Potassium carbonate | MAC: 2 mg/m <sup>3</sup> |                 |          |        |        |

#### Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

#### Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

**Derived No Effect Level (DNEL)** No information available

| Route of exposure            | Acute effects (local) | Acute effects (systemic) | Chronic effects (local) | Chronic effects (systemic) |
|------------------------------|-----------------------|--------------------------|-------------------------|----------------------------|
| Oral<br>Dermal<br>Inhalation |                       |                          |                         |                            |

**Predicted No Effect Concentration (PNEC)** No information available.

### 8.2. Exposure controls

#### Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

#### Personal protective equipment

**Eye Protection** Goggles (European standard - EN 166)  
**Hand Protection** Protective gloves

| Glove material | Breakthrough time | Glove thickness | EU standard | Glove comments (minimum requirement) |
|----------------|-------------------|-----------------|-------------|--------------------------------------|
| Natural rubber | See manufacturers | -               |             |                                      |

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|                                   |                 |        |
|-----------------------------------|-----------------|--------|
| Nitrile rubber<br>Neoprene<br>PVC | recommendations | EN 374 |
|-----------------------------------|-----------------|--------|

## Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.

(Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

## Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

## Large scale/emergency use

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

**Recommended Filter type:** Particulates filter conforming to EN 143

## Small scale/Laboratory use

Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Recommended half mask:-** Particle filtering: EN149:2001

When RPE is used a face piece Fit Test should be conducted

## Environmental exposure controls

No information available.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

|   |                          |  |
|---|--------------------------|--|
| Appearance                              | White                    |  |
| Physical State                          | Powder Solid             |  |
| Odor                                    | Odorless                 |  |
| Odor Threshold                          | No data available        |  |
| pH                                      | 11.5-12                  | 50 g/l aq.sol                            |
| Melting Point/Range                     | 891 °C / 1635.8 °F       |  |
| Softening Point                         | No data available        |  |
| Boiling Point/Range                     | No information available |  |
| Flash Point                             | No information available | <b>Method -</b> No information available |
| Evaporation Rate                        | Not applicable           | Solid                                    |
| Flammability (solid,gas)                | No information available |  |
| Explosion Limits                        | No data available        |  |
| Vapor Pressure                          | No information available |  |
| Vapor Density                           | Not applicable           | Solid                                    |
| Specific Gravity / Density              | 2.43 @ 19°C              |  |
| Bulk Density                            | No data available        |  |
| Water Solubility                        | 1120 g/l (20°C)          |  |
| Solubility in other solvents            | No information available |  |
| Partition Coefficient (n-octanol/water) |                          |  |
| Autoignition Temperature                |                          |  |
| Decomposition Temperature               | No data available        |  |
| Viscosity                               | Not applicable           | Solid                                    |
| Explosive Properties                    | No information available |  |
| Oxidizing Properties                    | No information available |  |

### 9.2. Other information

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Molecular Formula C K2 O3  
Molecular Weight 138.21

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

None known, based on information available

### 10.2. Chemical stability

Stable under recommended storage conditions: Hygroscopic

### 10.3. Possibility of hazardous reactions

#### Hazardous Polymerization Hazardous Reactions

Hazardous polymerization does not occur.  
No information available.

### 10.4. Conditions to avoid

Avoid dust formation. Incompatible products. Exposure to moisture.

### 10.5. Incompatible materials

Acids. Strong oxidizing agents.

### 10.6. Hazardous decomposition products

Potassium oxides. Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Product Information

#### (a) acute toxicity;

Oral

Based on available data, the classification criteria are not met

Dermal

Based on available data, the classification criteria are not met

Inhalation

Based on available data, the classification criteria are not met

| Component           | LD50 Oral            | LD50 Dermal | LC50 Inhalation |
|---------------------|----------------------|-------------|-----------------|
| Potassium carbonate | > 2000 mg/kg ( Rat ) |             |                 |

#### (b) skin corrosion/irritation;

Category 2

#### (c) serious eye damage/irritation;

Category 2

#### (d) respiratory or skin sensitization;

Respiratory

Based on available data, the classification criteria are not met

Skin

Based on available data, the classification criteria are not met

#### (e) germ cell mutagenicity;

Based on available data, the classification criteria are not met

#### (f) carcinogenicity;

Not mutagenic in AMES Test

Based on available data, the classification criteria are not met

There are no known carcinogenic chemicals in this product

#### (g) reproductive toxicity;

Based on available data, the classification criteria are not met

#### (h) STOT-single exposure;

Category 3

#### (i) STOT-repeated exposure;

Based on available data, the classification criteria are not met

Target Organs

No information available.

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(j) aspiration hazard; Not applicable  
Solid  
Symptoms / effects, both acute and delayed No information available

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

Ecotoxicity effects Do not empty into drains.

| Component           | Freshwater Fish                             | Water Flea | Freshwater Algae | Microtox |
|---------------------|---|------------|------------------|----------|
| Potassium carbonate | LC50 <510 mg/L/96h<br>(Pimephales promelas) |            |                  |          |

### 12.2. Persistence and degradability

Persistence

Soluble in water, Persistence is unlikely, based on information available.

Degradability

Not relevant for inorganic substances.

### 12.3. Bioaccumulative potential

Bioaccumulation is unlikely

### 12.4. Mobility in soil

The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility. Highly mobile in soils

### 12.5. Results of PBT and vPvB assessment

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB).

### 12.6. Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

Persistent Organic Pollutant

This product does not contain any known or suspected substance

Ozone Depletion Potential

This product does not contain any known or suspected substance

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

Waste from Residues / Unused Products

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging

Dispose of this container to hazardous or special waste collection point.

European Waste Catalogue (EWC)

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.

Other Information

Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains.

## SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

ADR

Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

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## 14.4. Packing group

IATA Not regulated

### 14.1. UN number

### 14.2. UN proper shipping name

### 14.3. Transport hazard class(es)

### 14.4. Packing group

14.5. Environmental hazards No hazards identified

14.6. Special precautions for user No special precautions required

14.7. Transport in bulk according to Not applicable, packaged goods

Annex II of MARPOL73/78 and the

IBC Code

## SECTION 15: REGULATORY INFORMATION

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

#### International Inventories

X = listed

| Component           | EINECS    | ELINCS | NLP | TSCA | DSL | NDSL | PICCS | ENCS | IECSC | AICS | KECL |
|---------------------|-----------|--------|-----|------|-----|------|-------|------|-------|------|------|
| Potassium carbonate | 209-529-3 | -      |     | X    | X   | -    | X     | X    | X     | X    | X    |

#### National Regulations

| Component           | Germany - Water Classification (VwVwS) | Germany - TA-Luft Class |
|---------------------|--|-------------------------|
| Potassium carbonate | WGK 1                                  |                         |

| Component           | France - INRS (Tables of occupational diseases)             |
|---------------------|---|
| Potassium carbonate | Tableaux des maladies professionnelles (TMP) - RG 58, RG 67 |

Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment.

Take note of Dir 94/33/EC on the protection of young people at work

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

### 15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has been conducted by the manufacturer/importer

## SECTION 16: OTHER INFORMATION

### Full Text of H-/EUH-Statements Referred to Under Section 3

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

#### Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

**RPE** - Respiratory Protective Equipment

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

**PNEC** - Predicted No Effect Concentration

**LD50** - Lethal Dose 50%



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**LC50** - Lethal Concentration 50%

**NOEC** - No Observed Effect Concentration

**PBT** - Persistent, Bioaccumulative, Toxic

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - Volatile Organic Compounds

## Key literature references and sources for data

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

## Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

**Creation Date** Oct-2013

**Next Revision Date** Oct-2023

**Revision Summary** SDS section 1 updated and update of Format.

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

## Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text

**End of Safety Data Sheet**