

Potsil, Malt Kiln Farm, Low Road, Pentney, King's Lynn, Norfolk, PE32 1JF Norfolk, United Kingdom.

SAFETY DATA SHEET

PRODUCT: POTSIL

SECTION 1. IDENTIFICATION OF SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name Potsil

Product name Silicic acid, potassium salt

Registration number 01-2119456888-17

UFI 7300-D0CR-700V-2FRW

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

Sector of use SU1 Agriculture, forestry, fishery

Product category PC12 Fertiliser

Application of the substance / the mixture Fertiliser

Uses advised against

Any use carrying a risk of direct contact with eyes/skin where workers are exposed without adequate personal protective equipment (PPE).

Process involving extreme heat advised against.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Potsil
Malt Kiln Farm
Low Road
Pentney
King's Lynn
Norfolk
PE32 1JF
United Kingdom
+44(0)1760 338898
enquiries@potsil.com

Further information obtainable from: Product safety department

1.4 Emergency telephone number

Emergency numbers: +44(0)1760 338898 (Norfolk Office)
+44(0)7969 896118 (Out of hours)
+44(0)1795 871105 (Kent Farm)

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SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 127/2008)



Skin Irrit. 2 H315 Causes skin irritation
Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H335 May cause respiratory irritation

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008

This product is classified and labelled according to the CLP regulation

Hazard pictogram GHS07

Signal word Warning

Hazard-determining components of labelling:

Silicic acid, potassium salt

Hazard statements:

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

Precautionary statements:


P260 Do not breathe mist/vapours/spray.
P280 Wear protective gloves/eye protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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 advice/attention.

2.3 Other Hazards

The substance does not meet the criteria for PBT or vPvB substance. No other hazards identified.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

| Dangerous components | | |
|----------------------|--|----------|
| CAS: 1312-76-1 | Silicic acid, potassium salt | >35-≤50% |
| EINECS: 215-199-1 |  Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 | |

Additional information: For the wording of the listed hazard phrases refer to section 16.

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SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

General information: Immediately remove any clothing soiled by the product.

After inhalation:

Supply fresh air; consult doctor in case of complaints.

After skin contact:

Immediately rinse with water. If skin irritation continues, consult a doctor.

After eye contact:

DO NOT DELAY!

Check for and remove contact lenses.

Rinse opened eye for several minutes under running water. Then consult doctor.

After swallowing

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

Information for doctor: Treat symptomatically and supportively.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents:

Use extinguishing measures suitable to surrounding conditions.
appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

During heating or in case of fire, poisonous gases are produced.

5.3 Advice for fire fighters

Protective equipment:

Do not inhale explosive gases or combustion gases.

Wear fully protective suit.

Wear self-contained respiratory protective device.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

Particular danger of slipping on leaked/spilled product.

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course in undiluted form.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid binding material (sand, diatomite, acid binders, universal binders, sawdust).

Send for recovery or disposal in suitable receptacles.

6.4 Reference to other sections

See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

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SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Avoid direct contact (skin/eye contact, ingestion and/or inhalation of fume/mist/dust) with the product in the undiluted form.

Safety showers and eye wash facilities should be available in the work area.

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

Do not store in aluminium or galvanised containers.

Information about storage in one common storage facility:

Do not store together with acids.

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well-sealed receptacles.

7.3 Specific end use(s)

No further relevant information available.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

DNELs

Silicic acid, potassium salt:

Workers – Hazard via inhalation route

Systemic effects

Long term exposure

DNEL (Derived No Effect Level): 5.61 mg/m³

Workers – Hazard via dermal route

Systemic effects

Long term exposure

DNEL (Derived No Effect Level): 1.49 mg/kg bw/day

General population – Hazard via inhalation route

Systemic effects

Long term exposure

DNEL (Derived No Effect Level): 1.38 mg/m³

General population – Hazard via dermal route

Systemic effects

Long term exposure

DNEL (Derived No Effect Level): 0.74 mg/kg bw/day

PNECs

Silicic acid, potassium salt:

PNEC aqua (freshwater): 7.5mg/L

PNEC freshwater (intermittent releases): 7.5 mg/L

PNEC aqua (marine water): 1 mg/L

PNEC STP: 348 mg/L

No potential for bioaccumulation.

Additional information: The lists valid during the making were used as basis.

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8.2 Exposure controls

Personal protective equipment:

Select PPE appropriate for the operations taking place taking into account the product properties.

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases/fumes/ aerosols.

Avoid contact with eyes and skin.

Do not eat or drink while working.

Ensure that washing facilities are available at the work place.

Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/the substrate/the preparation. Selection of the glove material on consideration of the penetration times, rate of diffusion and the degradation.

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. The resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration of the glove material

The exact break through time has to be found by the manufacturer of the protective gloves and has to be observed.

Eye protection:



Tightly sealed goggles

Body protection:

Alkaline resistant protective clothing.

Body protection must be chosen depending on product properties, activity and possible exposure.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:

| | |
|---|---|
| Form: | Fluid |
| Colour: | Green |
| Odour: | Odourless |
| Odour threshold: | Not determined |
| pH-value: | Alkaline |
| Melting point: | Undetermined |
| Boiling point: | 100 °C |
| Flash point: | Cannot support combustion |
| Flammability: | Non flammable |
| Decomposition temp.: | Not determined |
| Auto-ignition temp.: | Product is not self-igniting |
| Explosive properties: | Product does not present an explosion hazard |
| Explosive limits: | Non explosive (void of any chemical structures commonly associated with explosive properties) |
| Vapour pressure at 20°C: | 23hPa |
| Density at 20°C: | 1.3g/cm ³ |
| Relative density: | Not determined |
| Vapour density: | Not determined |
| Evaporation rate: | Not determined |
| Solubility in water: | Soluble, miscibility carrier |
| Partition coefficient n-octanol/water: | Not determined |
| Viscosity: | Not determined |
| Solvent content: | |
| Organic solvents: | 0.00% |
| VOC (EC): | 0.00% |

9.2 Other information

NOTE: The physical data presented above are typical values and should not be construed as a specification.

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions

10.2 Chemical stability

Thermal decomposition/conditions to be avoided: No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions

No dangerous reactions known under normal conditions and use.

10.4 Conditions to avoid

None identified

10.5 Incompatible materials

Ferrous metals

10.6 Hazardous decomposition products

Decomposes by reaction with strong acids

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SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity Based on available data, the classification criteria are not met.

| LD/LC50 values relevant for classification | | |
|---|------|-----------------------|
| 1312-76-1 Silicic acid, potassium salt | | |
| Oral | LD50 | >5,000 mg/kg (rat) |
| Dermal | LD50 | >5,000 mg/kg (rabbit) |

Primary irritant effect:

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

CMR effects (carcinogenicity, mutagenicity, and toxicity for reproduction)

Germ cell mutagenicity

Bacterial reverse mutation assay (Ames test, OECD 471): Negative

Classification for genotoxicity is not warranted.

Carcinogenicity

No evidence of rise to a carcinogenic risk.

Classification for carcinogenicity is not warranted.

Reproductive toxicity

No evidence of reproductive effects.

Classification for reproductive toxicity according to regulation (EC) 1272/2008 is not required.

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

| Aquatic toxicity: | |
|---|----------------------|
| 1312-76-1 Silicic acid, potassium salt | |
| EC50 | >100 mg/kg (daphnia) |

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulation potential Product is not expected to bioaccumulate..

12.4 Mobility in soil No further relevant information available.

Additional ecological information:

General notes:

Water hazard class1 (German Regulation) (Self -assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities to reach ground water, water course or sewage system.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable

12.6 Other adverse effects No further relevant information available.

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SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Recommendation

Recommended Hierarchy of controls:

- Minimise waste
- Reuse if not contaminated:
- Recycle, if possible; or
- Safe disposal (if all else fails).

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Contact waste processors for recycling information.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

European waste catalogue

Waste key numbers in accordance with the European Waste Catalogue (EWC) are origin-referred defined. Since this product is used in several industries/locations, no waste key can be supplied by the supplier. The waste key number should be determined in arrangement with your waste disposal partner or the responsible authority.

Uncleaned packaging:

Recommendation:

Disposal must be made according to official regulations.

Container remains hazardous when empty. Continue to observe all precautions.

Containers, even those that are "empty" may contain residues that can develop hazardous gases and vapours upon heating. Do not cut, drill, grind, weld or perform similar operations on or near empty containers.

SECTION 14. TRANSPORT INFORMATION

| | |
|--|--|
| 14.1 UN-Number ADR, IMDG, IATA | Void |
| 14.2 UN proper shipping name ADR, IMDG, IATA | Void |
| 14.3 Transport hazard class(es) ADR, IMDG, IATA Class | Void |
| 14.4 Packing group ADR, IMDG, IATA | Void |
| 14.5 Environmental hazards | Not applicable |
| 14.6 Special precautions for user | Not applicable |
| 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable |
| Transport/Additional information | Not dangerous according to above specification |
| UN "Model Regulation" | Void |

SECTION 15. REGULATORY INFORMATION

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

Directive 2012/18/EU

Named dangerous substances – ANNEX I None of the ingredients is listed

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

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SECTION 16. OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and do not establish a legally valid contractual relationship.

16.1 Relevant phrases

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

16.2 Abbreviations

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
EC50: Effective Concentration, 50 percent
LC50: Lethal Concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent, very Bioaccumulative
Skin Irrit. 2: Skin corrosion/irritation - Category 2
Eye Irrit. 2: Serious eye damage/irritation - Category 2
STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

ANNEX: Exposure scenario

Sector of Use SU1 Agriculture, forestry, fishery

Product category PC12 Fertilisers

Description of the activities/processes covered in the Exposure Scenario

See section 1 of annex to the Safety Data Sheet

Physical parameters

Physical state Fluid

Concentration of the substance in the mixture The substance is main component.

Used amount per time or activity According to the directions of use.

Other operational conditions

Other operational conditions affecting environmental exposure

Observe section 6 of the Safety Data Sheet (Accidental release measures).

Other operational conditions affecting worker exposure

Avoid contact with eyes. Avoid contact with the skin. Do not breathe gas/fume/vapour/aerosol.
Keep away from food, drink and animal feedingstuffs. Keep only in the original container in a well-ventilated place.
Ensure adequate ventilation, especially in closed rooms.

Avoid direct contact with the chemical/product/preparation by organisational measures

Other operational conditions affecting consumer exposure Keep out of reach of children

Other operational conditions affecting consumer exposure during the use of the product. Not applicable.

Risk management measures

Organisational protective measures

No special measures required.
Employment restrictions concerning juveniles must be observed.
Keep away from food, beverages and animal feed.
Avoid contact with drinking water and/or food during application.
Provide washing facilities in the workplace.