

SAFETY DATA SHEET

According to 1907/2006/EC (REACH), 2015/830/EU

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

1.1 Product identifiers

Product name : S1 (Inorganic binder)

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

Identified uses : Inorganic binder, not for human or veterinary use.

1.3 Details of the supplier of the safety data sheet

Company : DR AXION

Telephone : +82(70)-8640-6750

Fax : +82(52)-239-1815

E-mail address : jwpark2@draxion.co.kr

Web site : www.draxion.co.kr

1.4 Emergency telephone number

Emergency Contact : CHEMTREC Within Korea 070-8640-6670

CHEMTREC Outside Korea +82(70)-8640-6670

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS / CLP]

Physical hazard – Based on available data, the classification criteria are not met

Health hazard – Skin Corrosion/irritation, Serious Eye Damage/Eye Irritation

Environment hazard – Based on available data, the classification criteria are not met

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Symbol(s) Xi-Irritant

R-phrases) R41 – Risk of serious damage to eyes

R37/38 – Irritating to respiratory system and skin

C : Corrosive

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]



Signal word

Danger

Hazard statement(s)

H314 – Causes severe skin burns and eye damage

H315 – Causes skin irritation

H318 – Causes serious eye damage

Precautionary statement(s)

P264: Wash (hands) thoroughly after handling.

P280: Wear (protective gloves/protective clothing/eye protection/face protection

P302 + P352 – IF ON SKIN: Wash with plenty of soap and 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

P310 – Immediately call a POISON CENTER or doctor/ physician

2.3 Other hazards

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances Mixtures

Ingredients CAS No. Conc. % EC No. Classification

Component	CAS-No	Weight %	EC No.	CLP Classification – Regulation (EC) No 1272/2008
Sodium silicate (Mol ratio + >1.6 - <+2.6)	1344-09-8	39.5~41.0 %	215-687-4	Skin Irrit. 2 (H315) Eye Irrit. 1 (H318) STOT SE 3 (H335)
water	7732-18-5	59.0~61.5%	231-791-2	-

4. FIRST AID MEASURES

4.1 Description of first aid measures

General Advice If symptoms persist, call a physician

In case of eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

In case of skin contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

In case of Ingestion Do not induce vomiting. Get medical attention if symptoms occur.

In case of swallowed Move to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

Causes eye burns.

4.3 Indication of immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

5. FIRE-FIGHTING 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. None known

Hazardous Combustion Products

None under normal use conditions

5.3 Precautions for fire-fighters

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

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation. 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

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Wear personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Do not breathe vapors or spray mist. Do not ingest.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

Use in laboratories

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure limits

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

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

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration(PNEC) No information available.

8.2 Exposure controls

Appropriate engineering controls : 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

Respiratory protection : Mask

Hand protection : Protective gloves

Eye protection : Goggles (European standard -EN 166)

Skin and body protection : Long sleeved clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance Form: Viscous, Colorless, Liquid

Odour : Odorless

Odour Threshold : No data available

pH : 10~12

Melting/freezing point : -6 °C

Initial boiling point and boiling range : 103.6 °C

Flash point : Not applicable

Evaporation rate : No data available

Flammability : Not applicable

Vapour pressure : No data available

Vapour density : 0.7

Water solubility : Soluble

Partition coefficient : n-octanol/water :

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity : 35~40cps @ 20°C

Explosive properties : No information available

Oxidizing properties : No information available

9.2 Other safety information

10. STABILITY AND REACTIVITY

10.1 Reactivity

None known, based on information available

10.2 Chemical stability

Stable under normal conditions

10.3 Possibility of hazardous reactions

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

10.4 Conditions to avoid

Incompatible products. Excess heat.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

None under normal use conditions.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity Oral

Based on available data, the classification criteria are not met ATE = > 2000 mg/kg

Dermal

Based on available data, the classification criteria are not met

Inhalation

Based on available data, the classification criteria are not met

Skin irritation

Category 2

Eye irritation

Category 1

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

There are no known carcinogenic chemicals in this product

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure (GHS)

No data available

Specific target organ toxicity - repeated exposure (GHS)

No data available

Skin, Respiratory system, Eyes, Gastrointestinal tract (GI)

Aspiration hazard

No data available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available

12.2 Persistence and degradability

Miscible with water, Persistence is unlikely, based on information available.

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

No data available for assessment.

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

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. Do not dispose of waste into sewer.

14. TRANSPORT INFORMATION

14.1 UN-Number

ADR/RID : IMDG : IATA :

Not regulated

14.2 UN proper shipping name

ADR/RID : IMDG : IATA :

Not regulated

14.3 Transport hazard class(es)

ADR/RID : IMDG : IATA :

Not regulated

14.4 Packaging group

ADR/RID : IMDG : IATA :

Not regulated

14.5. Environmental hazards

No hazards identified

14.6. Special precautions for user

No special precautions required

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable, packaged goods

15 REGULATORY INFORMATION

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

No data available

15.2 Chemical Safety Assessment

Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

16. OTHER INFORMATION

Further information

The above information is believed to be correct but does not purpose to be all inclusive and shall be used only as a guide. The information this document is based on the resent state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product guidechem shall not beheld liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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