Safety Data Sheet (SDS) FLUSH/ 01

According to SANS 10234/UN GHS 6th edition
Revision Date: 2019/06/10

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Version: 1.2

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

Product identifier:

Identification as on the label/Trade name: FLUSHSOL®

Additional information: Product code FLUSH/01

Relevant identification uses of the substance and uses advised against:

Identified uses: Tank cleaner.

Uses advised against: Use only as directed.

Details of the supplier of the Safety Data Sheet:

AECI Limited
14 Field Road, LILIANTON

Emergency telephone numbers:

Griffon Poison information centre: 082 446 8946
Poisons Information Helpline: 0861 555 777
AECI Limited: (011) 823 8000 (o/h) Spill Tech: 086 100 0366 (a/h)

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to

SANS 10234:2008, Regulation EC 1272/2008 [EU-GHS/CLP]	
Hazard classes/Hazard categories	Hazard statement
Skin corrosion (Category 1B)	H314
Serious eye damage (Category 1)	H318

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: None.

The most important adverse human health effects: Causes serious skin burns and eye damage.

Label elements

Hazard pictograms:

Signal Word: danger

Hazard Statements: H314 Causes severe skin burns and eye damage.

Precautionary Statements: P102: Keep out of reach of children. P264 Wash thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. 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.

Special labelling of certain mixtures: None

Other hazards: None.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Ingredients: Classification is based on the following ingredients which may be present**.**

Substance name (IUPAC/EC)	CAS –No. EC-No.	Concentration % by weight	Classification EC1272/2008
Sodium metasilicate anhydrous	6834-92-0 229-912-9	1-10%	Skin corrosion (Category 1 B) H314. STOT SE 3 H335.
Sodium carbonate	497-19-8 207-838-8	50-60%	Eye irritant (Category 2) H319.
Alcohols, C9-11, ethoxylated	68439-46-3	10-20%	Acute toxicity oral (Category 4) H302.Serious eye damage (Category 1) H318.

For full text of H statements see section 16

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES

Description of first aid measures:

In case of inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

In case of skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately.

In case of eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Check for and remove any contact lenses. Get medical attention immediately.
In case of ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention.

Most important symptoms and effects, both acute and delayed:

Inhalation: Dust may irritate the respiratory system. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.
Ingestion: May be harmful if swallowed, may cause burns to mouth, oesophagus and stomach.
Skin contact: Causes skin severe skin burns.
Eye contact: Causes eye serious eye damage.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

SECTION 5. FIRE -FIGHTING MEASURE

Extinguisher media:

Suitable extinguisher media:
SMALL FIRE: Not combustible. Use extinguishing media suited to burning materials.
LARGE FIRE: Fine water spray or fog is recommended, CO_2 or dry chemical.
Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the mixture:

Fire decomposition products such as harmful gases or vapours from this product are likely to be irritating if inhaled,

Advice for fire-fighters:

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.
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

Personal precautions, protective equipment and emergency procedures:

For non-emergency and emergency personnel: 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. 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.

Environmental precautions:

Stop leak if without risk. Sinks and mixes with water. High pH of this material may be harmful to aquatic life

Methods for containment and cleaning up:

For small spills: Clear up spills immediately and dispose of waste safely. Approach the spillage from upwind. Avoid generation and spreading of dust. Carefully shovel or sweep up spilled material and place in properly labelled suitable containers. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage

For large spills Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk through spilled material. Carefully shovel or sweep up spilled material and place in well labelled suitable container for disposal according to local regulations. Avoid generating dust.

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 information on disposal.

Additional information:

None.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

Protective measures: Observe directions on label and instructions for use.

Advice on general occupational hygiene: Do not eat drink or smoke when handling this product.

Conditions for safe storage, including incompatibilities:

Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use.

Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Occupational exposure limits (OEL):

None.

Biological exposure indices (BEI):

None.

Exposure control:

No special equipment is usually needed when occasionally handling small quantities.

Appropriate engineering controls: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below level of overexposure (from known, suspected or apparent adverse effects).

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Use safety glasses. If there is a potential for exposure to vapours/mist which could cause eye discomfort, wear chemical goggles that are dust tight.

Hand protection: Use chemical resistant gloves. Examples of preferred glove barrier materials include Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, Polyvinyl alcohol, Polyvinyl chloride.

Body protection: Protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

Respiratory protection: Usually, no respirator is necessary when using this product. Respiratory protection such as an approved respirator must be used when there is a potential to exceed the exposure limit requirements or guidelines.

Environmental exposure controls: Prevent product from entry into sewers and water courses.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance (form): Homogenous powder.

Colour: White.

Odour: Odourless**.**

Odour threshold: No information available.

pH : 10-12 (1% solution)

Melting point/range (°C): No information available.

Boiling point/range (°C): No information available.

Flash point (°C): No information available.

Evaporation rate: No information available.

Flammability (solid, gas, liquid): No information available.

Ignition temperature (°C): No information available.

Upper/lower flammability/explosive limits: No information available.

Vapour pressure (20°C): No information available.

Vapour density: No information available.

Specific gravity: No information available.

Water solubility: Soluble in water.

Octanol/Water partition coefficient: No information available.

Auto-ignition temperature: No information available.

Decomposition temperature: No information available.

Viscosity, dynamic (cPa s): No information available.

Physical hazards:

Explosive properties: None.

Other information:

Fat solubility (solvent-oil to be specified): No information available.

Bulk density: No information available.

Dissociation constant in water (p Ka): No information available.

Oxidation-reduction potential: No information available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity:

The product is stable under normal conditions.

Chemical stability:

Stable under normal storage conditions for 2 years.

Possibility of hazardous reactions:

Hazardous polymerization will not occur.

Conditions to avoid:

There are no known conditions that are likely to result in a hazardous situation.

Incompatible materials:

Acid anhydrides, acids, phenols and cresols.

Hazardous decomposition products:

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

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: No Information available.

Method: No Information available.

Dosage: No Information available.

Routes of administration: No Information available.

Results: No Information available.

Absorption: No Information available.

Distribution: No Information available.

Metabolism: No Information available.

Excretion: No Information available.

Information on toxicological effects:

Acute toxicity:

Sodium carbonate

Acute toxicity oral LD_{50} for rats 2 800 mg/kg.

Alcohols, C9-11, ethoxylated

Acute toxicity oral LD_{50} for rats 1000-1400 mg/kg.

Dermal LD_{50-} >2000 mg/kg.

Chronic toxicity: No information available.

Skin corrosion/irritation:

Sodium metasilicate anhydrous:

Based on the high degree of alkalinity, it is regarded corrosive to the skin and eyes.

Serious eye damage/irritation:

Alcohols, C9-11, ethoxylated:

May cause irreversible eye damage for rabbit.

Respiratory or skin sensitization: No information available.

Germ cell mutagenicity: No information available.

Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity: No information available.

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity:

Sodium metasilicate anhydrous:

This material is not persistent in aquatic systems, but its high pH when undiluted or un-neutralized is acutely harmful to aquatic life. Diluted material yields dissolved silica in a form that is indistinguishable from natural dissolved silica. It does not contribute to BOD. This material does not bioaccumulate except in species that use silica as a structural material such as diatoms and siliceous sponges. Where abnormally low natural silica concentrations exist (less than 0.1 ppm), dissolved silica may be a limiting nutrient for diatoms and a few other aquatic algal species. However, the addition of excess dissolved silica over the limiting concentration will not stimulate the growth of diatom populations; their growth rate is independent of silica concentration once the limiting concentration is exceeded. Neither silica nor sodium will appreciably bioconcentrate up the food chain.

Alcohols, C9-11, ethoxylated
Fish: LC_{50} (96 h) for *Oncorhynchus mykiss* (Rainbow trout) 10-100 mg/ℓ.
Daphnia: EC_{50} (48 h) for *Daphnia magna* (water flea) 5-25 mg/ℓ

Persistence and degradability:
Alcohols, C9-11, ethoxylated
Dissolved organic carbon (DOC) 94 %.

Bioaccumulative potential:
No information available.

Mobility in soil:
No information available.

Results of PBT& vPvB assessment:
No information available.

Other adverse effects:
No information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:
Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

Product/ packaging disposal:
Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

SECTION 14. TRANSPORT INFORMATION

Information:

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	3262	3262	3262
UN Proper shipping name:	CORROSIVE SOLID, BASIC, INORGANIC N.O.S (Sodium metasilicate anhydrous)	CORROSIVE SOLID, BASIC, INORGANIC N.O.S (Sodium metasilicate anhydrous)	CORROSIVE SOLID, BASIC, INORGANIC N.O.S (Sodium metasilicate anhydrous)

Transport hazard class:	8	8	8
Packaging group:	III	III	III
Marine pollutant:	No	No	No
Special precautions for user:	Not required	Not required	Not required
Transport in bulk according to MARPOL 73/78 Annex II and the IBC code	Not required	Not required	Not required

Inland waterways: Not required.

Emergency response information: No information.

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the mixture:

Relevant information regarding authorization: Occupational Health and Safety Act 1993 Regulation for Hazardous Chemical Substances.

ACGIH: American Conference of Governmental Industrial Hygienists (ACGIH)

Relevant information regarding restrictions:

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP]

Other National regulations: National Road Traffic Act, 1996 (ACT NO. 93 of 1996).

SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes.

National Environmental Management: Waste Act 59 of 2008.

Chemical Safety Assessment carried out? No

SECTION 16. OTHER INFORMATION

Indication of changes:

GHS aligned

Relevant classification and H statements (number and full text):

STOT SE 3- Specific Target Organ Toxicity single exposure (Category 3).

H302 Harmful if swallowed.H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H319 Causes serious eye irritation H335 May cause respiratory irritation.

Training instructions:

Use as indicated on the label, special training may be required for application.

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

Notice to readers:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.