Safety Data Sheet (SDS) POLYFEED 6:1:3 (44)

According to SANS 11014:2010 & 10234:2008
Revision Date: 2020/09/01

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

Product identifier:

Identification as on the label/Trade name: POLYFEED® 6:1:3 (44)

Additional information: Product code POL SP/02

Relevant identification uses of the substance and uses advised against:

Identified uses: Potassium nitrate based fertilizer.

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
Eye irritant (Category 2)	H319
Skin irritant (Category 2)	H315
STOT SE 3	H335

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: Irritating to eyes, respiratory system and skin.

Label elements

Hazard pictograms:

Signal Word: Warning

Hazard Statements: H319 Causes serious eye irritation. H315 Causes skin irritations. H335 May cause respiratory irritation.

Precautionary Statements: P260 Do not breathe dust. P264 Wash thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye 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. P301 + P312 IF SWALLOWED: Call a POISON CENTRE or doctor/ physician if you feel unwell.

Special labelling of certain mixtures: None

Other hazards: None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Ingredients:

Substance name (IUPAC/EC)	CAS –No. EC-No.	Concentration % by weight	Classification EC1272/2008
Potassium nitrate	7757-79-1 231-818-8	30-40%	Oxidising solid (Category 2) H272. Skin irritant (Category 2) H315. Eye irritant (Category 2) H319. STOT SE 3 H335.
Magnesium sulphate	7487-88-9 231-298-2	1-10%	Acute toxicity, oral, dermal, inhalation (Category 4) H302, H312, H332.

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. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

In case of eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. 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: High dust concentrations may cause irritation of the nose and upper respiratory tract with symptoms such as sore throat and coughing.
Ingestions: May be harmful if swallowed.
Skin contact: Prolonged contact may cause some irritation.
Eye contact: May cause irritation following contact.

Indication of any immediate medical attention and special treatment needed:

SECTION 5. FIRE -FIGHTING MEASURE

Extinguisher media:

Suitable extinguisher media:
SMALL FIRE: Use dry chemical powder.
LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Unsuitable extinguishing media: None known.

Special hazards arising from the mixture:

No information.

Advice for fire-fighters:

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Be sure to use an approved/certified respirator or equivalent.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Splash goggles, gloves.

For emergency responders: Splash goggles, gloves.

Environmental precautions:

Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapours, if any. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

Methods for containment and cleaning up:

For small spills Contain spilled material if possible. Collect in suitable and properly labelled containers.
For large spills Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in well labelled container for disposal according to local regulations.

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:

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Keep container dry. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Avoid contact with eyes.

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:

Store product in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Occupational exposure limits (OEL): TWA 5mg/m^3 (dust) ACGIH-USA

Biological exposure indices (BEI): None

Additional exposure limits under the conditions of use:

Exposure control:

Appropriate engineering controls: Avoid high dust concentration and provide ventilation where necessary.

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 particles which could cause eye discomfort, wear chemical goggles.

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: A lab coat is required when handling this product.

Respiratory protection: Respiratory protection is required when ventilation is inadequate or discomfort is experienced; use an approved air-purifying respirator. Respiratory protection should be worn 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): Solid.

Colour: Light pink.

Odour: Slight.

Odour threshold: No information available.

pH (1% solution in water): 5.5 – 6.0.

Melting point/range (°C): 344°C based on potassium nitrate.

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

Flash point (°C): No information.

Evaporation rate: No information available.

Flammability (solid, gas): 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.

Relative density (25°C): No information available

Water solubility (g/l) at 20°C: No information available.

n-Octanol/Water partition coefficient: More soluble in water.

Auto-ignition temperature: No information available.

Decomposition temperature: No information available.

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

Physical hazards:

Explosive properties: No information available
Oxidising properties: Not classified as an oxidising solid (tested).

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:

When heated strongly it melts and decompose releasing toxic fumes. Violent reaction or explosion may occur in cases of confinement of the product.

Conditions to avoid:

Heat and high temperatures.

Incompatible materials:

Reactive with combustible materials, organic materials. Slightly reactive to reactive with reducing agents.

Hazardous decomposition products:

These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...), and phosphates. Some metallic oxides.

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:

Potassium nitrate:

Acute toxicity oral LD_{50} for rats 4532 mg/kg.

Chronic toxicity: No information available.

Skin corrosion/irritation: No information available.

Serious eye damage/irritation: No information available.

Respiratory or skin sensitization: No information available.

Germ cell mutagenicity: No information available.

Carcinogenicity: No information available**.**

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:

No information available.

Persistence and degradability:

The nitrate ion is the predominate form of plant nutrition. It follows the natural nitrification/denitrification cycle to give nitrogen.

Bioaccumulative potential:

No information available.

Mobility in soil

Very soluble in water.

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

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	None required	None required	None required
UN Proper shipping name:	None required	None required	None required
Transport hazard class:	None required	None required	None required
Packaging group:	None required	None required	None required
Marine pollutant:	NO	NO	NO
Special precautions for user:	None required	None required	None required
Transport in bulk according to MARPOL 73/78 Annex II and the IBC code	None required	None required	None required

Inland waterways: No information.

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)

H272 May intensify fire; oxidiser. H302+H312+H332 Harmful if swallowed, in contact with skin or inhaled. H319 Causes serious eye irritation. H315 Causes skin irritations. 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.