

Safety Data Sheet (SDS) MICKN SP/01

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According to SANS 11014:2010 & 10234:2008
Revision Date: 2019/01/21

First print date: 2019/01/21

Version: 1.0

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

Product identifier:

Identification as on the label/Trade name: **MICROMIX[®] KN**

Additional information: MICKN SP/01

Relevant identification uses of the substance and uses advised against:

Identified uses: Fertilizer.

Uses advised against: Use only as directed.

Details of the supplier of the Safety Data Sheet:

AECI Limited
14 Field Road, LILANTON

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
Reproductive toxicity (Category 1)	H360FD

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: May cause eye irritation.

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Label elements

Hazard pictograms:



Signal Word: Danger

Hazard Statements: H360FD May damage fertility. May damage unborn child.

Precautionary Statements: P264 Wash thoroughly after handling. P270 Do not eat, drink or smoke when using this product.

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.	Concentration % by weight	Classification
	EC-No.		EC1272/2008
Potassium nitrate	7757-79-1	1-20 %	Oxidising solid (Category 3) H272.
	231-818-8		
Chelate copper (cu)	39208-15-6	1-5%	Skin irritation (Category 2) H315. Eye irritation (Category 2) H319. STOT SE 3 H335
	254-356-9		
Boric acid	10043-35-3	10-15%	Reproductive toxicity (Category 1B) H360 FD.
	233-139-2		

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.

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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.

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: May cause respiratory irritation.

Ingestions: May be harmful if swallowed.

Skin contact: May cause slight skin irritation.

Eye contact: May cause eye irritation.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

SECTION 5. FIRE -FIGHTING MEASURE

Extinguisher media:

Suitable extinguisher media:

SMALL FIRE: Use dry powder, dry chemical.

LARGE FIRE: Use alcohol foam, water spray or fog.

Unsuitable extinguishing media: Do not use a chemical, foam or attempt to smother the fire with steam or sand.

Special hazards arising from the mixture:

Dangerous gases or fumes may occur in case of fire. Vapours may form explosive mixtures with air.

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.

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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. Absorb with materials such as: sand, earth, vermiculite or diatomaceous earth.

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:

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. Do not get in eyes or on skin or clothing.

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.

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

Additional exposure limits under the conditions of use: None

Exposure control:

Appropriate engineering controls: Not required under normal use.

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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/mist 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 or dust 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): Powder.

Colour: White.

Odour: Slight characteristic odour.

Odour threshold: No information available.

pH (1% solution): 5.5 – 6.5.

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

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

Flash point (°C): Not applicable.

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.

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Bulk density: 0.8 – 1.0 g/ml.

Water solubility (g/l) at 20°C: Easily soluble in hot water, soluble in cold water.

n-Octanol/Water partition coefficient: No information available.

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 an oxidiser (based on similar tested mixture).

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:

Contact with strong bases liberates ammonia. Contact with strong acids liberates nitrous gases. May react violently with: Combustible material.

Conditions to avoid:

Decomposes on heating. Risk of explosion if heated under confinement.

Incompatible materials:

Reducing agents, strong acids and bases., powdered metals, Zinc, Copper.

Hazardous decomposition products:

Decomposes on heating. Ammonia gas may be liberated at high temperatures. Heating can release hazardous gases.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: No Information available.

Method: No Information available.

Dosage: No Information available.

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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:

Acute oral LD₅₀ for rats 2 950 mg/kg.

Dermal LD₅₀ >5000 mg/kg

Inhalation LC₅₀ >88.8 mg/ℓ.

Chronic toxicity: No information available.

Skin corrosion/irritation: No skin irritation for rabbits.

Serious eye damage/irritation: Irritating to eyes for rabbits.

Respiratory or skin sensitization: Does not cause skin sensitisation for mice.

Germ cell mutagenicity: Ames test negative.

Reproductive toxicity: No information available.

STOT-single exposure: No information available.

Aspiration hazard: No information available.

Other information: No information available.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity:

Fish: LC₅₀ (48 h) for *Cyprinus carpio* (carp) 447 mg/ℓ.

Persistence and degradability:

No information available.

Bioaccumulative potential:

Bioaccumulation unlikely.

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Mobility in soil

Water, completely soluble.

Soil, (NO₃⁻): Not expected to adsorb on soil.

Soil, (NH₄⁺): After release, adsorbs onto soil.

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	Not required	Not required	Not required
UN Proper shipping name:	Not required	Not required	Not required
Transport hazard class:	Not required	Not required	Not required
Packaging group:	Not required	Not required	Not required
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: Not required.

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

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SECTION 16. OTHER INFORMATION

Indication of changes:

First version, 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; oxidizer. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H360 FD

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.