

Date of preparation : 18/Nov./2010

Material Safety Data Sheet

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : KALIGREEN®

Manufacturer : Otsuka AgriTechno Co., Ltd.

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PRODUCT NO. (MSDS No.) :OAT0143U -2

SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

SUBSTANCE/PREPARATION : Preparation

ACTIVE INGREDIENT : Potassium bicarbonate

Composition(%) : 82

CAS No. : 298-14-6

OTHER INGREDIENTS : Surfactants and others

Composition(%) : 18

SECTION 3 - HAZARD IDENTIFICATION

FIRE AND EXPLOSION HAZARD

No information is available.

POTENTIAL HEALTH EFFECTS

This product slightly irritate to the eyes.

ADVERSE ENVIRONMENTAL EFFECTS

Toxic to aquatic organisms.

SECTION 4 - FIRST AID MEASURES

EYE CONTACT

May cause irritation.

Immediately flush eyes with copious amounts of water for at least 15 minutes. Get medical attention if irritation develops persist.

SKIN CONTACT

Take off contaminated clothing. Immediately wash skin with soap and copious amounts of water.

Seek medical attention if symptoms occur. Launder clothing before reuse.

INHALATION

Move to fresh air. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice. Call a poison control center or doctor for further treatment advice.

INGESTION

Immediately call a poison control center or doctor for treatment advice. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give any thing to an unconscious person.

SECTION 5 - FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS

FLASH POINT : Not combustible (Active ingredient)

FLAMMABLE LIMITS : Not determined

AUTOIGNITION TEMPERATURE : Not determined

EXTINGUISHING MEDIA

Foam, dry chemical, dry sand or carbon dioxide

FIRE FIGHTING INSTRUCTION

Water full fire-fighting turn-out gear (full bunker gear) and respiratory protection (self-contained breathing apparatus).

In fire situations involving the surrounding area, cool the product down with plenty of water.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Shut off all sources of ignition.

Wear appropriate personal protective equipment (refer to Section 8) during cleaning up. Avoid inhalation of vapor. Avoid contact with eyes and skin. Avoid inhalation of dust.

Avoid raising dust. Sweep up, place in a solid waster containers for later disposal. Mop area with water after material has been picked up.

SECTION 7 - HANDLING AND STORAGE

HANDLING

Handle with appropriate personal protective equipments (refer to Section 8) under ventilation. Avoid contact with eyes and skin. Avoid inhalation of dust. Avoid prolonged or repeated exposure. Avoid raising dust.

Do not eat or smoke while handling.

Wash hands thoroughly after handling.

STORAGE

Store in a cool place.

Keep tightly closed.

Keep all foods in separate area away.

Keep out of children.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINE

There is no PEL specified by OSHA and no TLV specified by ACGIH ¹⁾.

ENGINEERING CONTROLS

Mechanical exhaust and/or local exhaust are necessary.

PERSONAL PROTECTIVE EQUIPMENT(PPE)

RESPIRATORY PROTECTION : NIOSH/MSHA -approved respirator

PROTECTIVE GLOVES : Rubber gloves

EYE PROTECTION : Safety goggles

OTHER PROTECTIVE EQUIPMENT : Long-sleeved shirt and long pants, and shoes plus socks

INDUSTRIAL HYGIENE

Wash thoroughly after handling. Launder clothing before reuse.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : Powder

COLOR : Very slight yellowish

ODOR : Odorless

DENSITY : 0.86 (20°C)

MELTING POINT : Does not melt

BOILING POINT : Does not boil

VAPOR PRESSURE : Not applicable

VAPOR DENSITY : Not applicable

pH : 8.46

SOLUBILITY IN WATER : Soluble in water 600g/L (60°C, 140°F)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY

This product is stable under normal conditions of handling and storage.

CONDITIONS TO AVOID

Avoid store in high temperature.

INCOMPATIBILITY

Oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS

This product is decomposed at above 100°C, and generate harmful gas such as carbon dioxide.

HAZARDOUS POLYMERIZATION

Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

ROUTES OF ENTRY

Ingestion, Inhalation, Eye contact, Skin contact

ACUTE TOXICITY

LD₅₀ : 2340mg/kg (male rat, oral / active ingredient), 2409mg/kg (female rat, oral / active ingredient)

LD₅₀ : >2000mg/kg (rat, dermal / active ingredient)

CHRONIC EFFECTS (INCLUDING REPRODUCTIVE TOXICITY)

No information is available.

LOCAL EFFECTS (INCLUDING SYMPTOMS OF EXPOSURE)

This product slightly irritate the eyes, and not irritate the skin.

This product is not skin sensitization.

CARCINOGENICITY

None of components of this product are listed by IARC, NTP or OSHA as a carcinogen.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

No information is available.

FURTHER INFORMATION

No information is available.

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY

LC₅₀ (96hours) : 8.2mg/L (*Cyprinus carpio*)

EC₅₀ (48hours) : 2.5mg/L (*Daphnia magna*)

Ebc₅₀ (72hours) : 1.4mg/L (*Algae*)

SECTION 13 - DISPOSAL CONSIDERATIONS

Comply with applicable federal, state and local regulations.

SECTION 14 - TRANSPORT INFORMATION

The cautions that should be taken during transportation are same as the cautions mentioned in section 7. In case of accidental release or fire during transportation, see the instructions given in sections 5, 6, 7 and 8 above.

UN number : Not applicable

IATA, IMDG, CFR : Not applicable

SECTION 15 - REGULATORY INFORMATION

TSCA INVENTORY STATUS : Listed (active ingredient)

SECTION 16 - OTHER INFORMATION

No information is available.

REFERENCES

- 1) 2005 TLVs and BEIs (ACGIH)

OTHER INFORMATION

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