

TOAGOSEI CO., LTD.

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1-14-1, NISHI SHIMBASHI, MINATO-KU, TOKYO 105 JAPAN  
PHONE: 03(3597)7360 FACSIMILE: 03(3597)7371

TOA MSDS No. 1-153-M-510  
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M A T E R I A L   S A F E T Y   D A T A   S H E E T

PRODUCT NAME: KALIGREEN

SECTION- I

Manufacturer's name TOAGOSEI Co., Ltd.  
Address 1-14-1, Nishi-shimbashi, minato-ku  
Tokyo, Japan Tel: 81-3-3597-7360  
Charge A. Motegi  
Manager of Bioscience Department  
Company name NICHIMEN AMERICA Inc.  
Address 1345 Avenue of The Americas  
New York, N.Y. 10105 Tel: 212-698-5105  
Chemical name and Synonyms Potassium hydrogencarbonate  
(Potassium bicarbonate)  
Trade name and Synonyms KALIGREEN (Fungicide)  
Chemical Family Bicarbonate salt CAS No. 298-14-6  
Formula  $\text{KHCO}_3$   
US EPA Reg. No. 70231-1

SECTION- II HAZARDOUS INGREDIENTS/IDENTITY

Unity or Mixture Mixture  
Hazardous Compounds OSHA ACGIH % CAS No.  
Potassium hydrogencarbonate 82% 298-14-6  
Surfactants, Others 18%

## SECTION-III PHYSICAL &amp; CHEMICAL CHARACTERISTICS

Boiling Point	Does not boil
Vapor Pressure (mmHg)	Does not vaporize
Vapor Density (Air=1)	Does not vaporize
Solubility in water	Soluble 600 g/liter (60°C, 140°F)
Reactivity in water	None
Specific Gravity	0.56 g/cm <sup>3</sup> (20/20°C)
Percent, Volatile by volume	0%
Evaporation Rate	Does not vaporize
Melting Point	Does not melt
Appearance and Odor	White to pale yellowish white powder

## SECTION- IV FIRE &amp; EXPLOSION HAZARDS DATA

Flash Point	Not combustible
Flammable Limits	N/A
Extinguishing Media	Dry chemical, sand, water spray or regular foam.
Special Fire Fighting Procedures	None
Unusual Fire and Explosion Hazards	None
Auto Ignition Temperature	None

## SECTION- V PHYSICAL HAZARDS (REACTIVITY DATA)

Stability	Stable
Incompatibility	Do not mix with strong acidic compounds. heat
Hazardous decomposition products	$\text{KHCO}_3 \rightarrow \text{K}^+ + \text{H}_2\text{O} + \text{CO}_2$
Hazardous polymerization	Will not occur.

## SECTION- VI HEALTH HAZARDS

Acute	LD <sub>50</sub> (rat) 3,358 mg/kg
Chronic	N/A
Signs and Symptoms of Exposure	Not hazardous
Medical Conditions Generally Aggravated by Exposure	N/A
Chemicals Listed as Carcinogen or Potential Carcinogen	No

## Emergency and First Aid Procedures

<u>Inhalation</u>	Remove person to fresh air zone.
<u>Eyes</u>	Mildly irritating. Immediately flush with plenty of running water at least 15 minutes and get medical attention if irritation persists.
<u>Skin</u>	None irritant. Wash with soap and water.
<u>Ingestion</u>	Drink 1 or 2 glasses of water.

SECTION-VII SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be taken in handling and storing

Store in a cool, dry place. Keep all foods  
in separate area away. Keep out of children.  
Follow label directions carefully.

Other precautions

Do not eat or smoke while handling.  
Wash hands thoroughly after handling.

Step to be taken in case material is released or spilled

Pick up spills and place in suitable  
containers. Mop area with water after  
material has been picked up.

Waste disposal method

Disposed of in accordance with Local, Federal  
and State Regulations.

SECTION-VIII SPECIAL PROTECTION INFORMATION/ CONTROL MEASURES

Respiratory Protection

Dust mask or chemical protection mask

Ventilation Local exhaust

No special requirement

Mechanical

No special requirement

Protective Gloves

Wear rubber gloves

Eye protection

Wear safety goggles

Other Protective Clothing Equipment

Long-sleeved shirt, rubber boots.

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