Date of issue: 2018/08/30
Date of revision: 2022/03/29

Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking

Product identifier:
- Product name: Chlorinated lime,high
- SDS No. : 1554E-2

Details of the supplier of the safety data sheet
- Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.
- Address: 3-1, Honmachibashi, Chuo-ku,Osaka ,JAPAN
- Division: Chemical Safety Management Department
- Telephone number: +81-6-6946-8061
- FAX: +81-6-6946-1607
- e-mail address: kagakuhinanzenkanri@kishida.co.jp

2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

PHYSICAL AND CHEMICAL HAZARDS
- Oxidizing solids: Category 2

HEALTH HAZARDS
- Acute toxicity (Oral): Category 4
- Acute toxicity (Inhalation): Category 2
- Skin corrosion/irritation: Category 1
- Serious eye damage/eye irritation: Category 1
- Specific target organ toxicity - single exposure: Category 2(respiratory system)
- Specific target organ toxicity - single exposure: Category 3 (Respiratory tract irritation)

ENVIRONMENT HAZARDS
- Hazardous to the aquatic environment (Acute): Category 1
- Hazardous to the aquatic environment (Long-term): Category 1

Label elements

Signal word: Danger

HAZARD STATEMENT
- May intensify fire; oxidizer
- Harmful if swallowed
- Fatal if inhaled
- Causes severe skin burns and eye damage
- May cause damage to organs(respiratory system)
- May cause respiratory irritation
- Very toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENT

Prevention
- Avoid release to the environment.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep away from clothing and other combustible materials.
- Do not breathe dust/fume/gas/mist/vapors/spray.

In case of inadequate ventilation wear respiratory protection.
Use only outdoors or in a well-ventilated area.
Wash contaminated parts thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not eat, drink or smoke when using this product.

Response

In case of fire: Use appropriate media other than water to extinguish.
Collect spillage.
Call a POISON CENTER/doctor/physician if you feel unwell.
IF exposed or concerned: Call a POISON CENTER/doctor/physician.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
Wash contaminated clothing before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Storage

Store in a well-ventilated place. Keep container tightly closed.

Disposal

Dispose of contents/container in accordance with local/national regulation.

Specific Physical and Chemical hazards

Oxidizing material. Organic or combustible material may catch fire in contact with it.

3. Composition/information on ingredients

Mixture/Substance selection:

Mixture

Ingredient name:Calcium hypochlorite
Content (%):70
Chemical formula:CaCl2O2
Chemicals No, Japan:1-177
CAS No.:7778-54-3
MW:-
ECNO:231-908-7

Ingredient name:Calcium hydroxide
Content (%):≦5.0
Chemical formula:Ca(OH)2
Chemicals No, Japan:1-181
CAS No.:1305-62-0
MW:74.09
ECNO:215-137-3

Ingredient name:Water
Content (%):13-17
Chemical formula:H2O
CAS No.:7732-18-5
MW:18.02
ECNO:231-791-2

Ingredient name:Other
Content (%):≦10

CAS No.:-

Note : The figures shown above are not the specifications of the product.

4. First-aid measures

Descriptions of first-aid measures

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor/physician if you feel unwell.

IF ON SKIN (or hair)

Take off immediately all contaminated clothing. Rinse skin with water or shower.

If skin irritation or rash occurs: Get medical advice/attention.

IF IN EYES

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF SWALLOWED

Rinse mouth. Do NOT induce vomiting.

Call a POISON CENTER/doctor/physician if you feel unwell.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

Specific hazards arising from the substance or mixture

Containers may explode when heated.

Fire may produce irritating, corrosive and/or toxic gases.

Advice for firefighters

Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

Special protective equipment and precautions for fire-fighters

Wear fire resistant or flame retardant clothing.

Wear protective gloves/protective clothing/eye protection/face protection.

Firefighters should wear self-contained breathing apparatus with full face peace operated positive pressure mode.

6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

Ventilate area until material pick up is complete.

Wear proper protective equipment.

Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

Methods and materials for containment and cleaning up

Sweep up, place in a bag and hold for waste disposal.

Preventive measures for secondary accident

Collect spillage.

7. Handling and storage

Precautions for safe handling

Preventive measures

(Exposure Control for handling personnel)

Do not breathe dust/fume/gas/mist/vapors/spray.

(Protective measures against fire and explosion)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Keep away from clothing and other combustible materials.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

Safety Measures

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

When using do not eat, drink or smoke.

Any incompatibilities

See "10.Stability and Reactivity"

Advice on general occupational hygiene

Wash contaminated parts thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wash contaminated clothing before reuse.

Storage

Conditions for safe storage

Keep container tightly closed.

Store in a cool, dry place. Do not store in direct sunlight.

Container and packaging materials for safe handling

Glass

Polyethylene

8. Exposure controls/personal protection

Control parameters

Adopted value

(Calcium hydroxide)

ACGIH(1979) TWA: 5mg/m3 (Eye, URT & skin irr)

OSHA-PEL

(Calcium hydroxide)

TWA: 15mg/m3 (Total dust)

TWA: 5mg/m3 (Respirable fraction)

Exposure controls

Appropriate engineering controls

Do not use in areas without adequate ventilation.

Eye wash station should be available.

Washing facilities should be available.

Individual protection measures

Respiratory protection

Wear respiratory protection.

Hand protection

Wear protective gloves.

Eye protection

Wear eye/face protection.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state: Granulated powder
Color: White to off white
Odor: Chlorine odour
Melting point/Freezing point data is not available.
Boiling point or initial boiling point data is not available.
Boiling range data is not available.
Flammability (gases, liquids and solids) data is not available.
Lower and upper explosion limit/flammability limit data is not available.
Flash point data is not available.
Auto-ignition temperature data is not available.
Decomposition temperature data is not available.
pH data is not available.
Kinematic viscosity data is not available.
Solubility:
Solubility in water: Soluble
n-Octanol/water partition coefficient data is not available.
Vapor pressure data is not available.
Density and/or relative density: (bulk density)about 2g/cm3
Relative vapor density (Air=1) data is not available.
Particle characteristics data is not available.

10. Stability and Reactivity

Reactivity

Not available.

Chemical stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions

(Calcium hypochlorite)
Decomposes rapidly above 175° C . Decomposes rapidly on contact with acids. This produces chlorine and oxygen. This generates fire and explosion hazard. The substance is a strong oxidant. It reacts violently with combustible and reducing materials. The solution in water is a medium strong base. Reacts violently with ammonia, amines, nitrogen compounds and many other substances. This generates explosion hazard. Attacks many metals. This produces flammable/explosive gas (hydrogen). Attacks plastics. (ICSC 0638)
(Calcium hydroxide)
Decomposes on heating. This produces calcium oxide. The solution in water is a medium strong base. Reacts violently with acids. Attacks many metals in the presence of water. This produces flammable/explosive gas (hydrogen). (ICSC 0408)

Conditions to avoid

Contact with incompatible materials.
Contact with fire source.

Incompatible materials

Acids, Reducing agents, Combustible materials, Ammonia, Amines, Nitrogen compounds, Metals

Hazardous decomposition products

Chlorine, Hydrogen, Calcium oxide

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[GHS Cat. Japan, base data]

(Calcium hypochlorite)

male rat LD50=790mg/kg (SIAR, 2006)

Acute toxicity (Dermal)

[GHS Cat. Japan, base data]

(Calcium hypochlorite)

rabbit LD50 >2000mg/kg (SIAR, 2006)

Acute toxicity (Inhalation)

[GHS Cat. Japan, base data]

(Calcium hypochlorite)

dust: rat LC50=1.202-1.423mg/L/1hr (cal. 0.301-0.356mg/L/4hr) (SIAR, 2006)

Irritant properties

Skin corrosion/irritation

[GHS Cat. Japan, base data]

(Calcium hypochlorite)

corrosive (hypochlorite ion/ alkaline) (AICIS IMAP, 2015) et al.

(Calcium hydroxide)

human moderate to mild irritation (IUCLID, 2000)

Serious eye damage/irritation

[GHS Cat. Japan, base data]

(Calcium hypochlorite)

skin corrosion/irritation cat.1 (MHLW GHS classification results)

(Calcium hydroxide)

eyes corrosive (IUCLID, 2000)

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenic effects data is not available.

Reproductive toxicity data is not available.

STOT

STOT-single exposure

[cat.1]

[GHS Cat. Japan, base data]

(Calcium hydroxide)

respiratory system (HSDB, 2014)

[cat.3 (resp. irrit.)]

[GHS Cat. Japan, base data]

(Calcium hypochlorite)

respiratory tract irritation (GESTIS, Access on August 2020)

STOT-repeated exposure data is not available.

Aspiration hazard data is not available.

12. Ecological Information

Ecotoxicity

Aquatic toxicity

Very toxic to aquatic life with long lasting effects

Hazardous to the aquatic environment (Acute)

[GHS Cat. Japan, base data]

(Calcium hypochlorite)

Crustacea (Ceriodaphnia reticulata) LC50=0.005-0.006mg/L/48hr (SIDS, 2006)

Hazardous to the aquatic environment (Long-term)

[GHS Cat. Japan, base data]

(Calcium hypochlorite)

Fish (Tribolodon hakonensis) NOEC=0.005mg/L/133days (SIDS, 2006)

Water solubility

(Calcium hypochlorite)

21 g/100 ml (25℃) (ICSC, 2005)

(Calcium hydroxide)

none (ICSC, 1997)

Persistence and degradability

Persistence and degradability data is not available.

Bioaccumulative potential

Bioaccumulative potential data is not available.

Mobility in soil

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

Waste treatment methods

Avoid release to the environment.

Dispose of contents/container in accordance with local/national regulation.

14. Transport Information

UN No. or ID No.: 3487

UN Proper Shipping Name :

CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE,CORROSIVE with not less than 5.5% but not more than 16% water

Class or division (Transport hazard class) : 5.1

Subsidiary hazard(s) : 8

Packing group : II

ERG GUIDE No.: 140

Special provisions No.: 314; 322

IMDG Code (International Maritime Dangerous Goods Regulations)

UN No.: 3487

Proper Shipping Name :

CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE,CORROSIVE with not less than 5.5% but not more than 16% water

Class or division : 5.1

Subsidiary hazard(s) : 8

Packing group : II

Special provisions No.: 314; 322

IATA Dangerous Goods Regulations

UN No.: 3487

Proper Shipping Name :

CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE,CORROSIVE with not less than 5.5% but not more than 16% water

Class or division : 5.1

Subsidiary hazard(s) : 8

Hazard labels : Oxidizer & Corrosive
Packing group : II
Special provisions No.: A8; A136; A803

Environmental hazards

MARPOL Annex III - Prevention of pollution by harmful substances

Marine pollutants (yes/no) : yes

MARPOL Annex V - Prevention of pollution by garbage discharge

Hazardous to the aquatic environment - acute hazard: cat.1
Calcium hypochlorite
Hazardous to the aquatic environment - long-term hazard: cat.1, 2
Calcium hypochlorite

Maritime transport in bulk according to IMO instruments

Non Noxious Liquid ; Cat. OS
Water

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Chemicals listed in TSCA Inventory

Calcium hydroxide; Water; Calcium hypochlorite

Other regulatory information

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

16. Other information

GHS classification and labelling

Ox. Sol. 2: H272 May intensify fire; oxidizer
Acute Tox. 4: H302 Harmful if swallowed
Acute Tox. 2: H330 Fatal if inhaled
Skin Corr. 1: H314 Causes severe skin burns and eye damage
Eye Dam. 1: H318 Causes serious eye damage
STOT SE 2: H371 May cause damage to organs
STOT SE 3: H335 May cause respiratory irritation
Aquatic Acute 1: H400 Very toxic to aquatic life
Aquatic Chronic 1: H410 Very toxic to aquatic life with long lasting effects

Reference Book

Globally Harmonized System of classification and labelling of chemicals, UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN
IMDG Code, 2018 Edition (Incorporating Amendment 39-18)
IATA Dangerous Goods Regulations (62nd Edition) 2021
2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2021 TLVs and BEIs. (ACGIH)
Supplier's data/information

General Disclaimer

This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.
The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.
The GHS classification data given here is based on current Japan official data (NITE published in 2020).