MATERIAL SAFETY DATA SHEET

PRODUCT AND COMPANY IDENTIFICATION

Company name COOLMIN CO. LTD

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number

Established/revised on Jun 24th, 2014

PRODUCT NAME (Chemical name, product name): COOLMIN K-100

IDENTIFICATION OF THE SUBSTANCE

Single product/Mixture : Mixture

Chemical name : Gluconic asid Potasslum hydroxide

sodium salt

Comporiet and contents : 10.0% 4.50% Chemical formuls/Structur : C6H11Na07 KOH

formuls

METI number (2)-1410 1-369

CAS registry number 527-07-1 1310-58-3

Category UN/UN number Not available 1814

PRTR Not available Not abailable

HAZARDS IDENTIFICATION

Category name Corrosive substance

Risk

Potential health effects : Eye and skin contact Imitates eyes and skin.

Potential environmental : Hamiful to environment due to strong alkalinity.

effects Drainage treatment is needed.

FIRST AID MEASURES

Eye contact : Immediatery flush eyes with plenty or running

water for over 15 minutes and get immediate medical treatment by an ophthalmologist. Make sure to wash every comer of lids and eyeballs.

Skin contact immediatery remove contaminated clothing

including shoes and wash affected area with plenty of water. In case dermal imitations occur

get medical treatment.

Inhalation : Immediatery move person into frash air and

keep warm and at rest. Get medical attention.

Ingestion : DO NOT induce vomiting give water to the

person and get immediate medical attention.

FIRE FIGHING MEASURES

Flammability Nonflammable

Exitinguishing medis : -

ACCIDENTAL RELEASE MEASURES

Wear appropriate personal protection)e. G. Eye protector, rubber gloves, rubber boots and protective mask, etc) Absorb liquid by dry sand or inert absorbent and collect it in hemetic container.

HANDRING AND STORAGE

Handring Wear, if needed, appropriat protection (e. G. Eye

protector, rubber gloves, rubber boots and

long-sleeved blouse, etc)to avoid direct contact with skin, eyes and clothes. Handlethe container

with care.

Strage After use, store in a sealed container away from

entry of dust and misture. Store away from direct sunlight and rain water and in a cool,

dark and wall-ventilated place.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure

: None

control limits

Occupational exposure

limits

japan Sociaty for: None Occupational Health

ACGIH: None

Work hygienic practices : Eyewash/body wash fasility near working area

recommended.

Personal protective

equpment

Respiratory prototion : Not specially required

Eye protection: Goggles
Hand protection: Rubber gloves
Foot protection: Rubber boots

Skin and body protection: Long-sleeved blouse

PHYSICAL AND CHEMICAL PROPERTIES

Appearance Pale yellow water solution

Boilling poin ; Approx 100°C Vapor pressure ; __Pa°C

Solubility : Arbitrarily solube to water

flushingpoint : -°C

Specific gravity 1. 25±0. 01(25°C)

Volallity Not avaliable

STABILITY AND REACTIVITY

Burning point : Not avaliable
Fining point : Not avaliable
Explosion limit : Not avaliable
Flammability : Nonflammable

ignition quality

Not avaliable

(hypergolicity and water

reacivily)

Oxvdabilly

: Not avaliable Autoreactivity/wxplodabilly : Not avaliable Dust explodabilly : Not avaliable

Stability/reactivity

: Stable under normal handring conditions.

Acid-base reaction generates heat of neutralization

Othere

Not available.

TOXICOLOGICAL INFORMATION

Dermal corrosivity

Imitant property(skin, eyes: Proionged exposure may imitate skin eyes

Sensitizung property Acute(Including LD50) Subacute Chronic Carcinogenicity Mutagenicity Reproductive effects Terslogenicity

Others (including toxic

: Not available

gases generation by water-reaction)

ECOLOGICAL INFORMATION

: Unconfimed Degradability : Unconfimed Accumulability : Unconfimed FIsh toxicity

: Alkaline when dissolved in water. Toxic against Others

aquatic lives.

DISPOSAL CONSIDERATIONS

Dispose rhe sffuents to the sewage treatment facilities in accordanse with the provisions of ordinances. Or the effuents and containers shall be property treated pursuant to all the relevent regulations by entrusting their disposal to the waste treatment compenies authrized by the perfectunal governors.

TRANSPORT INFORMAITION

Comply with the instructions set forth in "Handling and storage" Make sure the containera are not leakly, lord them avolding overturning, falling and damages, and take meesures to prevent collapse of cargo.

REGULATORY INFORMATION

Article57-2of the industrial Safety and health Act: Materials to be advised (Appendix 9 of government decree) 4.5% potasalum hydrate

OTHER INFORMATION

Descriptions given above are established based on data and informatin currently available, but in no way do they guarantee the relevancy of such data/information or of the evaluations thereaf. Moreover, since these instructins apply to normal use of the product safty measures approriate for intended purpose should be newly undertaken in case of paricular uses.