MATERIAL SAFETY DATA SHEET

CODE: 035-12322, 037-12321, 039-12325

IDENTITY Calcium Carbonate, 99.9%

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Calcium Carbonate, 99.9%

MANUFACTURER: Wako Pure Chemical Industries, Ltd.

SUPPLIER: SUPPLIER(In JAPAN): Wako Pure Chemical Industries, Ltd.

ADDRESS: 1-2, Doshomachi 3-chome, Chuo-ku, Osaka, 540-8605, Japan TELEPHONE NUMBER & EMERGENCY TELEPHONE NUMBER: (06)6203-3741

SUPPLIER(In U.S.A.): Wako Chemicals USA, Inc.

ADDRESS: 1600 Bellwood Road, Richmond, VA 23237, U.S.A.

TELEPHONE NUMBER: (804)271-7677

EMERGENCY TELEPHONE NUMBER: (800)424-9300 (CHEMTREC)

SUPPLIER(In EUROPE): Wako Chemicals GmbH, Germany ADDRESS: Nissanstrasse 2,D-41468 Neuss, GERMANY

TELEPHONE NUMBER & EMERGENCY TELEPHONE NUMBER: (02131)311-0

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME: Calcium carbonate

SYNONYMS: Carbonic acid calcium salt(1:1); Calcichew

FORMULA: CaCO3
MOLECULAR WEIGHT:100.09
CAS NUMBER: 471-34-1
TSCA INVENTORY: Listed
EINECS No.: 207-439-9
IDENTIFICATION OF DANGER;
SYMBOL: ----R-phrases: -----

3. HAZARDS IDENTIFICATION

May be harmful if inhaled and ingested. Causes eye and skin irritation.

4. FIRST AID MEASURES

GENERAL ADVICE: Wash off immediately with soap and plenty of water. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. Use personal protective equipment.

INHALATION: Move victim to fresh air. If breathing is difficult, give oxygen. If irritation persists, consult a physician.

SKIN CONTACT :Remove contaminated clothes and shoes, rinse skin with plenty of water or shower. Use soap to help assure removal. If irritation

persists, consult a physician.

EYE CONTACT: Remove any contact lenses at once. Flush eyes well with flooding amounts of running water for at least 15 minutes. Assure

adequate flushing by separating the eyelids with sterile fingers. If irritation persists, consult a physician.

INGESTION: Rinse mouth, give plenty of water to dilute the substance. Never give anything by mouth to an unconscious person. Consult a

physician.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical powder, foam, water FIRE & EXPLOSION HAZARDS: Toxic and irritating dust, fumes or smoke may be emitted.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS : Firemen should wear normal protective equipment (full bunker gear) and positive-

pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Remove ignition sources and ventilate the area. In case of insufficient ventilation, wear suitable respiratory

equipment. Avoid raising dust and avoid contact with skin and eyes.

ENVIRONMENTAL PRECAUTIONS : Prevent spills from entering sewers, watercourses or low areas.

METHODS FOR CLEAN UP: Do not touch spilled material without suitable protection (See section 8). After material is completely picked up,

MSDS No. EW031232 Revised Date: 2004/12/15 wash the spill site with soap and water and ventilate the area. Put all wastes in a plastic bag for disposal and seal it tightly. Remove, clean, or dispose of contaminated clothing.

7. HANDLING AND STORAGE

Research use only.

HANDLING: Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Handle material with suitable

protection.

STORAGE: Store away from sunlight in well-ventilated dry place at room temperature. Keep container tightly closed.

INCOMPATIBLE PRODUCTS: fluorine, acids, alum, ammonium salts

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES : Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.

VENTILATION: Local Exhaust; Necessary, Mechanical(General); Recommended

PERSONAL PROTECTION;

Respiratory protection: Use a NIOSH/MSHA or European Standard EN149 approved respirator if the vapor concentrations exceed regulatory

guidelines.

Hand protection : Chemical resistant gloves
Eye protection : Safety glasses(goggles)
Skin protection : Protective clothing

CONTROL PARAMETER:

OSHA Final Limits :None established ACGIH TLV(s) : None established

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: White powder ODOR: Odorless PH: Not available BOILING POINT: Not available

MELTING POINT: 825 °C= 1517 °F (Decomposition)

FLASH POINT:

FLAMMABILITY (solid, gas):

DECOMPOSITION TEMPERATURE:

Not available

EXPLOSIVE LIMITS:

VAPOR PRESSURE:

VAPOR PRESSURE:

SPECIFIC GRAVITY:

SOLUBILITY IN:

WATER: Practically insoluble

DILUTE ACIDS : Soluble log Po/w : Not available

10. STABILITY AND REACTIVITY

CONDITION TO AVOID : Sunlight, heat

INCOMPATIBILITY(MATERIAL TO AVOID): fluorine, acids, alum, ammonium salts

HAZARDOUS DECOMPOSITION PRODUCTS :Carbon monoxide and calcium oxides may be formed.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA : LD50(orl,rat): 6450mg/kg(28ZPAK -,267,1972)
IRRITATION DATA : Eye; rabbit; 750µg/24H; Severe(28ZPAK -,267,1972)
Skin; rabbit; 500mg/24H; Moderate(28ZPAK -,267,1972)

MUTATION DATA : Not available REPRODUCTIVE EFFECTS DATA :Not available

Not available

TUMORIGENIC DATA:
ADDITIONAL INFORMATION;

NTP: Not listed IARC: Not listed OSHA: Not listed ACGIH: Not listed

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY: Not available BIOACCUMULATION POTENTIAL: Not available AQUATIC TOXICITY: Not available OTHER INFORMATION: WGK; nwg

13. DISPOSAL CONSIDERATION

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. And then bury in landfill in accordance with all applicable regulations. Any disposal practice must be in compliance with country, local, state, and federal laws and regulations (contact country, local or state environmental agency for specific rules).

14. TRANSPORT INFORMATION

IATA: Not Restricted.

DOT(Department of Transportation): Not a Hazardous Material for DOT shipping.

15. REGULATORY INFORMATION

US REGULATIONS;

EPA: CERCLA RQ= Not listed EPCRA TPQ= Not listed OSHA: TQ= Not listed

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EU REGULATIONS; SYMBOL: ----R-phrases: -----S-phrases: 26-36

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable protective clothing.

EC index No.: Not listed

16. OTHER INFORMATION

No specific notes

The above information is believed to be correct to be the best of our knowledge and information but does not purport to be all inclusive and shall be used only as a guide. This product is intended to be used by expert persons having chemical knowledge and skill, at their own discretion and risk and Wako shall not be held liable for any damageresulting from handling or from contact with the above material.