SIGMA-ALDRICH

Material Safety Data Sheet

Version 4.0 Revision Date 02/22/2011 Print Date 08/31/2011

| ODUCT AND COMPANY ID | ENTIFICATION | |
|--|---|---|
| Product name | Coenzyme Q ₁₀ | |
| Product Number | : C9538 | |
| Brand Product Use | : Sigma : For laboratory research purposes. | |
| Supplier | : Sigma-Aldrich N 3050 Spruce Street SAINT LOUIS MO 63103 USA | Manufacturer : Sigma-Aldrich Corporatior 3050 Spruce St. St. Louis, Missouri 63103 USA |
| Telephone Fax | : +1 800-325-5832 : +1 800-325-5052 | |
| Emergency Phone # (For both supplier and manufacturer) | : (314) 776-6555 | |
| Preparation Information | : Sigma-Aldrich Corporation Product Safety - Americas Region 1-800-521-8956 | |
| ZARDS IDENTIFICATION | | |
| Emergency Overview | | |
| OSHA Hazards No known OSHA hazard | 5 | |
| Not a dangerous substar | ce according to GHS. | |
| IMIS Classification | | |
| Health hazard: | 0 | |
| Flammability: | 0 | |
| Physical hazards: | 0 | |
| NFPA Rating | 0 | |
| Health hazard: Fire: | 0 | |
| Reactivity Hazard: | 0 0 | |
| Potential Health Effects | 0 | |
| | | |
| Inhalation | May be harmful if inhaled. May cause respiratory tract irritation. | |
| Skin Evos | May be harmful if absorbed through skin. May cause skin irritation. | |
| Eyes Ingestion | May cause eye irritation. May be harmful if swallowed. | |
| | | |

| Synonyms | : Ubiquinone 50 Q-10 Ubiquinone-10 | | |
|------------------|--|-----------|---------------|
| Formula | : C ₅₉ H ₉₀ O ₄ | | |
| Molecular Weight | : 863.34 g/mol | | |
| CAS-No. | EC-No. | Index-No. | Concentration |

| Coenzyme Q-10 | | | |
|---------------|-----------|---|---|
| 303-98-0 | 206-147-9 | - | - |

4. FIRST AID MEASURES

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid dust formation. Avoid breathing vapors, mist or gas.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: -20 °C

Keep in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

General industrial hygiene practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

| | Form | powder |
|----|---|-------------------------------------|
| | Colour | no data available |
| Sa | ifety data | |
| | рН | no data available |
| | Melting point/freezing point | Melting point/range: 49 °C (120 °F) |
| | Boiling point | no data available |
| | Flash point | no data available |
| | Ignition temperature | no data available |
| | Autoignition temperature | no data available |
| | Lower explosion limit | no data available |
| | Upper explosion limit | no data available |
| | Vapour pressure | no data available |
| | Density | no data available |
| | Water solubility | no data available |
| | Partition coefficient: n-octanol/water | no data available |
| | Relative vapour density | no data available |
| | Odour | no data available |
| | Odour Threshold | no data available |
| | Evaporation rate | no data available |

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions no data available

Conditions to avoid no data available

Materials to avoid Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

no data available

Inhalation LC50 no data available

Dermal LD50 no data available

Other information on acute toxicity no data available

Skin corrosion/irritation no data available

Serious eye damage/eye irritation no data available

Respiratory or skin sensitization no data available

Germ cell mutagenicity

no data available

Carcinogenicity

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

Reproductive toxicity - rat - Oral

Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Embryo or Fetus: Fetal death. Specific Developmental Abnormalities: Other developmental abnormalities. Reproductive toxicity - mouse - Oral

Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Embryo or Fetus: Fetal death.

no data available

Teratogenicity

Developmental Toxicity - mouse - Oral Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Developmental Toxicity - mouse - Oral Specific Developmental Abnormalities: Musculoskeletal system. Effects on Newborn: Physical.

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System) no data available

Aspiration hazard

no data available

Potential health effects

| Inhalation | May be harmful if inhaled. May cause respiratory tract irritation. |
|------------|---|
| Ingestion | May be harmful if swallowed. |
| Skin | May be harmful if absorbed through skin. May cause skin irritation. |
| Eyes | May cause eye irritation. |

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects no data available

Additional Information RTECS: DK3900000

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US) Not dangerous goods

IMDG Not dangerous goods

IATA Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards

No known OSHA hazards

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA Hazards

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

| Pennsylvania Right To Know Components | CAS-No. | Revision Date |
|---------------------------------------|---------------------|---------------|
| Coenzyme Q-10 | 303-98-0 | Revision Date |
| New Jersey Right To Know Components | | |
| Coenzyme Q-10 | CAS-No. 303-98-0 | Revision Date |

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Further information

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