

Safety Data Sheet

Siliform® Resin CP-15W Comp.A

Version: V1.0.0.1

Report No.: LB-202203-0613

Creation Date: 2022/03/06

Revision Date: 2022/03/06



*Prepared according to GB/T 17519 and GB/T 16483

1 Identification of the chemical and supplier

Product identifier

| | |
|-------------------|-------------------------------|
| Product Name | Siliform® Resin CP-15W Comp.A |
| CAS No. | Not applicable |
| EC No. | Not applicable |
| Molecular Formula | Not applicable |

Recommended use of the product and restrictions on use

| | |
|--------------------------|------------------------|
| Relevant identified uses | Municipal Engineering. |
| Uses advised against | No special note. |

Details of the supplier of the Safety Data Sheet

| | |
|------------------------|---|
| Name of the company | Suzhou Lubin Hi-Tech Material Co.,Ltd. |
| Address of the company | NO.69 WEXIN RD SUZHOU, CHINA, BUILDING 5, ROOM 202,OET PARK |
| Post code | 215000 |
| Telephone number | +86 18762867422 |
| Fax number | +86 51268186081 |
| E-mail address | service-lubin@hotmail.com |

Emergency phone number

| | |
|------------------------|------------------|
| Emergency phone number | +86 512 68186081 |
|------------------------|------------------|

2 Hazard(s) identification

Emergency overview

Liquid. Harmful if swallowed. Irritating to skin. SENSITISATION by skin contact. Serious irritating to eyes. Harmful by inhalation. Risk of allergy, asthma symptoms or breathing difficulties. Irritating to respiratory system. Slight risk of cancer. Danger of damage to health by prolonged exposure.

Hazard classification according to GHS

| | |
|--|-------------|
| Acute Toxicity – Oral | Category 4 |
| Skin Corrosion/Irritation | Category 2 |
| Skin Sensitization | Category 1 |
| Serious Eye Damage/Irritation | Category 2A |
| Acute Toxicity – Inhalation | Category 4 |
| Respiratory Sensitization | Category 1 |
| Specific Target Organ Toxicity-Single Exposure: Criteria for | Category 3 |

| | |
|--|------------|
| respiratory tract irritation | |
| Carcinogenicity | Category 2 |
| Specific Target Organ Toxicity- Repeated Exposure | Category 2 |

GHS Label elements

| | |
|-------------------|---|
| Hazard pictograms |  |
| Signal word | Danger |

Hazard statements

| | |
|------|---|
| H302 | Harmful if swallowed |
| H315 | Causes skin irritation |
| H317 | May cause an allergic skin reaction |
| H319 | Causes serious eye irritation |
| H332 | Harmful if inhaled |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled |
| H335 | May cause respiratory irritation |
| H351 | Suspected of causing cancer |
| H373 | May cause damage to organs through prolonged or repeated exposure |

Precautionary statements

◆ Prevention

| | |
|------|--|
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P260 | Do not breathe gas/mist/vapours/spray. |
| P261 | Avoid breathing gas/mist/vapours/spray. |
| P264 | Wash face and hands thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P285 | In case of inadequate ventilation, wear respiratory protection. |

◆ Response

| | |
|-----------|--|
| P312 | Call a POISON CENTER/doctor, if you feel unwell. |
| P314 | Get medical advice/attention if you feel unwell. |
| P330 | Rinse mouth. |
| P363 | Wash contaminated clothing before reuse. |
| P301+P310 | IF SWALLOWED: Immediately call a POISON CENTER/doctor. |
| P302+P352 | IF ON SKIN: Wash with plenty of water. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P308+P313 | IF exposed or concerned: Get medical advice/ attention. |
| P332+P313 | If skin irritation occurs: Get medical advice/attention. |

| | |
|-----------------------|--|
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |
| P342+P311 | If experiencing respiratory symptoms: Call a POISONCENTER/doctor. |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

◆ Storage

| | |
|------------------|--|
| P405 | Store locked up. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |

◆ Disposal

| | |
|-------------|---|
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. |
|-------------|---|

Hazard description

◆ Physical and chemical hazards

| | |
|--|--------------------------------------|
| | Liquid, toxic smoke/fumes in a fire. |
|--|--------------------------------------|

◆ Health hazards

| | |
|---------------------|---|
| Inhaled | Inhalation of vapours, especially for prolonged periods, may produce respiratory irritation and occasionally, distress. Inhalation of vapours may cause allergy or asthma symptoms or breathing difficulties if inhaled. Inhalation of vapours or aerosols (mists, fumes), generated by the product during the course of normal handling, may produce severely toxic effects; these may be harmful. |
| Ingestion | Accidental ingestion of the product may be harmful. |
| Skin Contact | The product may cause an allergic skin reaction following direct contact with the skin. The product can cause skin irritation following direct contact with the skin. |
| Eye | This product may cause serious eye irritation. Severe inflammation may be expected with pain following direct contact with the eye. |

◆ Environmental hazards

| | |
|--|--------------------------------------|
| | Please refer to 12th chapter of SDS. |
|--|--------------------------------------|

3 Composition/information on ingredients

Substance/mixture

| | |
|--|---------|
| | Mixture |
|--|---------|

| Component | CAS No. | EC No. | Concentration (wt, %) |
|---|------------|-----------|-----------------------|
| Polymethylene polyphenyl polyisocyanate | 9016-87-9 | 618-498-9 | 30~40 |
| Tris(1-Chloro-2-Propyl) Phosphate | 13674-84-5 | 237-158-7 | Commercial secrets |
| 4,4'-methylenediphenyl diisocyanate | 101-68-8 | 202-966-0 | 15~30 |

4 First-aid measures

Description of first aid measures

| | |
|-----------------------|---|
| General advice | Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance. |
|-----------------------|---|

| | |
|-----------------------------------|---|
| Eye contact | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable. |
| Skin contact | Take off contaminated clothing and shoes immediately. Wash off with plenty of soap and water for at least 15 minutes and consult a physician if feel uncomfortable. |
| Ingestion | Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately. |
| Inhalation | Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately. |
| Protecting of first-aiders | Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination. |

| Most important symptoms, acute and delayed

| | |
|---|--|
| 1 | Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. |
|---|--|

| Advice for protecting the rescuer

| | |
|---|--|
| 1 | Remove all sources of ignition and increase ventilation. |
| 2 | Avoid contact with skin and eyes. |
| 3 | Avoid inhalation of vapor or mist. |
| 4 | Use personal protective equipment including respirator. |

| Special note to the doctor

| | |
|---|--------------------------|
| 1 | Treat symptomatically. |
| 2 | Symptoms may be delayed. |

5 Fire-fighting measures

| Extinguishing media

| | |
|---------------------------------------|--|
| Suitable extinguishing media | Use extinguishing agent suitable for type of surrounding fire. |
| Unsuitable extinguishing media | No special notes. |

| Specific hazards arising from the substance or mixture

| | |
|---|---|
| 1 | Development of hazardous combustion gases or vapor possible in the event of fire. |
| 2 | Not considered a significant fire risk, however containers may burn. |

| Fire precautions and protective measures

| | |
|---|---|
| 1 | As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear. |
| 2 | Fight fire from a safe distance, with adequate cover. |
| 3 | Prevent fire extinguishing water from contaminating surface water or the ground water system. |

6 Accidental release measures

| Personal precautions, protective equipment and emergency procedures

| | |
|---|---|
| 1 | Use personal protective equipment, do not breathe gas/mist/vapour/spray. |
| 2 | Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges. |
| 3 | Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. |

Environmental precautions

| | |
|---|---|
| 1 | Prevent further leakage or spillage if safe to do so. |
| 2 | Discharge into the environment must be avoided. |

Methods and materials for containment and cleaning up

| | |
|---|--|
| 1 | Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding. |
| 2 | Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations. |
| 3 | Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. |

7 Handling and storage

Handling

| | |
|---|---|
| 1 | Handling is performed in a well ventilated place. |
| 2 | Wear suitable protective equipment. |
| 3 | Avoid contact with skin and eyes. |
| 4 | Keep away from heat/sparks/open flames/ hot surfaces. |

Storage

| | |
|---|--|
| 1 | Keep containers tightly closed. |
| 2 | Keep containers in a dry, cool and well-ventilated place. |
| 3 | Keep away from heat/sparks/open flames/hot surfaces. |
| 4 | Store away from incompatible materials and foodstuff containers. |

8 Exposure controls/personal protection

Control parameters

◆ Occupational Exposure limit values (Chemical Harmful Factors)

| Component | Standard | OELs | Standard value mg/m ³ | Critical adverse health effects | Remark |
|-------------------------------------|--------------|---------|-------------------------------------|---|---------------|
| 4,4'-methylenediphenyl diisocyanate | GBZ 2.1-2019 | PC-TWA | 0.05 | Eye and upper respiratory tract irritation; asthma. | sensitization |
| | | PC-STEL | 0.1 | | |
| | | MAC | - | | |

◆ Biological limit values

| | |
|-------------------------|-------------------------|
| Biological limit values | No relevant regulations |
|-------------------------|-------------------------|

◆ Monitoring methods




| | |
|---|---|
| 1 | EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. |
| 2 | GBZ/T 300.1~GBZ/T 300.160-2017; GBZ/T 300.161~GBZ/T 300.164-2018 Determination of toxic substances in workplace air (Series standard). |

Engineering controls

| | |
|---|--|
| 1 | Ensure adequate ventilation, especially in confined areas. |
| 2 | Ensure that eyewash stations and safety showers are close to the workstation location. |
| 3 | Set up emergency exit and necessary risk-elimination area. |

4 | Handle in accordance with good industrial hygiene and safety practice.

Personal protection equipment

| | |
|--------------------------|--|
| General requirement |    |
| Eye protection | Tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US)). |
| Hand protection | Wear protective gloves (such as butyl rubber) , passing the tests according to EN 374(EU), US F739 or AS/NZS 2161.1 standard. |
| Respiratory protection | In general situation, respiratory protection is not needed. If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges. |
| Skin and body protection | Wear chemical protective clothing. |

9 Physical and chemical properties

Physical and chemical properties

| | |
|---|--|
| Appearance | Dark brown transparent liquid |
| Odor | No information available |
| Odor threshold | No information available |
| pH | No information available |
| Melting point/freezing point(°C) | -24 (Calculated, Polymethylene polyphenyl polyisocyanate) |
| Initial boiling point and boiling range(°C) | >35 |
| Flash point(Closed cup, °C) | 177~227 |
| Evaporation rate | No information available |
| Flammability | Not flammable |
| Upper/lower explosive limits[% (v/v)] | Upper limit: No information available; Lower limit: No information available |
| Vapor pressure | < 0.00001hPa (20°C, Polymethylene polyphenyl polyisocyanate) |
| Vapor density(Air = 1) | No information available |
| Relative density(Water=1) | 1.24 (25°C, Polymethylene polyphenyl polyisocyanate) |
| Solubility | Insoluble in water |
| n-octanol/water partition coefficient | No information available |
| Auto-ignition temperature(°C) | > 400 (Polymethylene polyphenyl polyisocyanate) |
| Decomposition temperature(°C) | No information available |
| Viscosity | No information available |

10 Stability and reactivity

Stability and reactivity

| | |
|--------------------------|---|
| Reactivity | Contact with incompatible substances can cause decomposition or other chemical reactions. |
| Chemical stability | Stable under proper operation and storage conditions. |
| Possibility of hazardous | No information available. |

| | |
|---|--|
| reactions | |
| Conditions to avoid | Incompatible materials, heat, flame and spark. |
| Incompatible materials | Strong oxidizing agent. |
| Hazardous decomposition products | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

11 Toxicological information

Acute toxicity

| Component | LD ₅₀ (oral) | LD ₅₀ (dermal) | LC ₅₀ (inhalation,4h) |
|---|-------------------------|---------------------------|----------------------------------|
| Tris(1-Chloro-2-Propyl) Phosphate | 1500mg/kg(Rat) | No information available | No information available |
| Polymethylene polyphenyl polyisocyanate | 49000mg/kg(Rat) | > 9400mg/kg(Rabbit) | No information available |
| 4,4'-methylenediphenyl diisocyanate | 9200mg/kg(Rat) | No information available | No information available |

Carcinogenicity

| Component | List of carcinogens by the IARC Monographs | Report on Carcinogens by NTP |
|---|--|------------------------------|
| Polymethylene polyphenyl polyisocyanate | Category 3 | Not Listed |
| Tris(1-Chloro-2-Propyl) Phosphate | Not Listed | Not Listed |
| 4,4'-methylenediphenyl diisocyanate | Category 3 | Not Listed |

Others

| Siliform® Resin CP-15W Comp.A | |
|--|--|
| Skin corrosion/irritation | Causes skin irritation (Category 2) |
| Serious eye damage/irritation | Causes serious eye irritation (Category 2A) |
| Skin sensitization | May cause an allergic skin reaction (Category 1) |
| Respiratory sensitization | May cause allergy or asthma symptoms or breathing difficulties if inhaled (Category 1) |
| Reproductive toxicity | Based on available data, the classification criteria are not met |
| STOT-single exposure | May cause respiratory irritation (Category 3) |
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure (Category 2) |
| Aspiration hazard | Based on available data, the classification criteria are not met |
| Germ cell mutagenicity | Based on available data, the classification criteria are not met |
| Reproductive toxicity(additional) | Based on available data, the classification criteria are not met |

12 Ecological information

Acute aquatic toxicity

| | |
|-------------------------------|--------------------------|
| Acute aquatic toxicity | No information available |
|-------------------------------|--------------------------|

Chronic aquatic toxicity

| | |
|--------------------------|--------------------------|
| Chronic aquatic toxicity | No information available |
|--------------------------|--------------------------|

Persistence and degradability

| Component | Persistence (water/soil) | Persistence (air) |
|---|--------------------------|----------------------------|
| Polymethylene polyphenyl polyisocyanate | Low(Half-life = 1 days) | Low(Half-life = 0.24 days) |
| Tris(1-Chloro-2-Propyl) Phosphate | High | High |
| 4,4'-methylenediphenyl diisocyanate | Low(Half-life = 1 days) | Low(Half-life = 0.24 days) |

Bioaccumulative potential

| Component | Bioaccumulative potential | Comments |
|---|---------------------------|----------|
| Polymethylene polyphenyl polyisocyanate | Low | BCF=15 |
| Tris(1-Chloro-2-Propyl) Phosphate | Low | BCF=8 |
| 4,4'-methylenediphenyl diisocyanate | Low | BCF=15 |

Mobility in soil

| Component | Mobility in soil | Soil Organic Carbon-Water Partitioning Coefficient (Koc) |
|---|------------------|--|
| Polymethylene polyphenyl polyisocyanate | Low | 376200 |
| Tris(1-Chloro-2-Propyl) Phosphate | Low | 1278 |
| 4,4'-methylenediphenyl diisocyanate | Low | 376200 |

Results of PBT and vPvB assessment

| Component | Results of PBT and vPvB assessment [according to (EC) No 1907/2006] |
|-------------------------------------|---|
| Tris(1-Chloro-2-Propyl) Phosphate | Not PBT/vPvB |
| 4,4'-methylenediphenyl diisocyanate | Not PBT/vPvB |

13 Disposal considerations

Disposal considerations

| | |
|------------------------|--|
| Waste chemicals | Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal. |
| Contaminated packaging | Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible. |

| | |
|---------------------------------|--|
| Disposal recommendations | Refer to section waste chemicals and contaminated packaging. |
|---------------------------------|--|

14 Transport information

Label and Mark

| | |
|---------------------------|----------------|
| Transporting Label | Not applicable |
|---------------------------|----------------|

IMDG-CODE

| | |
|------------------|--|
| IMDG-CODE | NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS |
|------------------|--|

IATA-DGR

| | |
|-----------------|--|
| IATA-DGR | NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS |
|-----------------|--|

UN-ADR

| | |
|---------------|--|
| UN-ADR | NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS |
|---------------|--|

Others

| | |
|----------------------------------|---|
| Methods of packing | Packaging as recommended by manufacturer. |
| Precautions for transport | Transport vehicles should be equipped with the appropriate variety and quantity of fire equipment and emergency equipment leakage during transport. Before transport, should be preceded by checking whether container integrity, sealing. The transport unit must be placarded and marked in accordance with relevant transporting requirements. |

15 Regulatory information

International chemical inventory

| Component | EINECS | TSCA | DSL | IECSC | NZIoC | PICCS | KECI | AIIC | ENCS |
|---|--------|------|-----|-------|-------|-------|------|------|------|
| Polymethylene polyphenyl polyisocyanate | × | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Tris(1-Chloro-2-Propyl) Phosphate | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 4,4'-methylenediphenyl diisocyanate | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

| | |
|----------|---|
| [EINECS] | European Inventory of Existing Commercial Chemical Substances |
| [TSCA] | United States Toxic Substances Control Act Inventory |
| [DSL] | Canadian Domestic Substances List |
| [IECSC] | China Inventory of Existing Chemical Substances |
| [NZIoC] | New Zealand Inventory of Chemicals |
| [PICCS] | Philippines Inventory of Chemicals and Chemical Substances |
| [KECI] | Korea Existing Chemicals Inventory |
| [AIIC] | Australia. Inventory of Industrial Chemicals (AIIC) |
| [ENCS] | Japan Inventory of Existing & New Chemical Substances |

Chinese chemical inventory

| Component | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Polymethylene polyphenyl polyisocyanate | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × |
| Tris(1-Chloro-2-Propyl) Phosphate | × | × | × | × | × | × | × | × | × | × | × | × | × | × | × |

| | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,4'-methylenediphenyl diisocyanate | ✓ | × | × | × | × | × | × | × | × | × | × | × | × | × | × |
| <p>[A] Catalog of Hazardous Chemicals(2015 Edition), Notice 5th 2015, the former China State Administration of Work Safety together with the Ministry of Industry and Information Technology, etc.</p> <p>[B] List of Toxic Chemicals Restricted in China, Notice 60th 2019, the Ministry of Ecology and Environment, Ministry of Commerce, General Administration of Customs.</p> <p>[C] List of Ozone Depletion Chemicals Controlled to be Imported/Exported in China (First to Sixth batches) , Notice from 2000 to 2012, the former Ministry of Environmental Protection of PRC.</p> <p>[D] Catalog of Hazardous Chemicals for Priority Management (First and Second batches) , Notice 95th, 2011, Notice 12th 2013, China State Administration of Work Safety.</p> <p>[E] Catalog of Hazardous Chemicals for Environmental Management, Notice 33th 2014, The former Ministry of Environmental Protection.</p> <p>[F] List of Various Monitoring Chemicals, 52th 2020, the Ministry of Industry and Information Technology.</p> <p>[G] List of Priority Controlled Chemicals (the First batch), 83th 2017, the former Ministry of Environmental Protection, Ministry of Industry and Information Technology, the former National Health And Family Planning Commission.</p> <p>[H] Catalog of Specially Controlled Hazardous Chemicals (First Edition), 1st 2020, the Ministry of Emergency Management, Ministry of Industry and Information Technology, Ministry of Public Security, Ministry of Transport.</p> <p>[I] List of Toxic and Harmful Water Pollutants (First batch), 28th 2019, the Ministry of Ecology and Environment, National Health Commission.</p> <p>[J] Catalog of Highly Toxic Chemicals, Notice 142th 2003, the former Ministry of Health of P.R.China.</p> <p>[K] Dangerous Chemicals Directory Used to Manufacture Exploder (2017 Edition), Notice 11th May. 2017, Ministry of Public Security of P.R.China.</p> <p>[L] Catalog of Stupefacient and Psychotropic Substances(2013 Edition), Notice 230th 2013, China Food and Drug Administration.</p> <p>[M] Catalog of Classification and Varieties of Precursor Chemicals, 120th 2017, series of announcements issued by the Ministry of Public Security and other ministries and commissions.</p> <p>[N] Catalog of Import and Export Management of Precursor Chemicals, 7th 2006, the Ministry of Commerce.</p> <p>[O] International Verification of Precursor Chemicals Management Catalog, 8th 2006, the Ministry of Commerce, Ministry of Public Security.</p> | | | | | | | | | | | | | | | |

Note:

- “✓” Indicates that the substance included in the regulations.
“×” No data or not included in the regulations.

16 Other information

Information on revision

| | |
|----------------------------|------------|
| Creation Date | 2022/03/06 |
| Revision Date | 2022/03/06 |
| Reason for revision | - |

Reference

- [1] IPCS: The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>.
- [2] IARC, website: <http://www.iarc.fr/>.
- [3] OECD: The Global Portal to Information on Chemical Substances, website: <https://www.chemportal.org/chemportal/substancesearch/index.action>.
- [4] CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>.
- [5] NLM: ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>.
- [6] EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>.
- [7] U.S. Department of Transportation: ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>.
- [8] Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

Abbreviations and acronyms

| | | | |
|---------|---------------------------------|------|--|
| CAS | Chemical Abstracts Service | UN | The United Nations |
| PC-STEL | Short term exposure limit | OECD | Organization for Economic Co-operation and Development |
| PC-TWA | Time Weighted Average | IMDG | International Maritime Dangerous Goods |
| MAC | Maximum Allowable Concentration | IARC | International Agency for Research on Cancer |
| DNEL | Derived No Effect Level | ICAO | International Civil Aviation Organization |

| | | | |
|------------------|--------------------------------------|-------|---|
| PNEC | Predicted No Effect Concentration | IATA | International Air Transportation Association |
| NOEC | No Observed Effect Concentration | ACGIH | American Conference of Governmental Industrial Hygienists |
| LC ₅₀ | Lethal Concentration 50% | NFPA | National Fire Protection Association |
| LD ₅₀ | Lethal Dose 50% | NTP | National Toxicology Program |
| EC ₅₀ | Effective Concentration 50% | PBT | Persistent, Bioaccumulative, Toxic |
| EC _x | Effective Concentration X% | vPvB | very Persistent, very Bioaccumulative |
| P _{OW} | Partition coefficient Octanol: Water | CMR | Carcinogens, mutagens or substances toxic to reproduction |
| BCF | Bioconcentration factor | RPE | Respiratory Protective Equipment |
| ED | Endocrine disruptor | | |

Disclaimer

This Safety Data Sheet (SDS) was prepared according to GB/T 16483 and GB/T 17519. The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.