Product Name	Dichloro Benzene (O-
Part Number	RXSOL-19-1298-050

Company Details:

RX MARINE INTERNATIONAL
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Chemical Name	CAS	EC number	Weight	Formula
Dichlorobenzene	95-50-1	202-425-9		C6H4Cl2

Signal Word Warning Hazard Statements H302 + H332 Harmful if swallowed or if inhaled. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H410 Very toxic to aquatic life with long lasting effects. Precautionary statements P273 Avoid release to the environment. P280 Wear protective gloves/ eye protection/ face protection. P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. P302 + P352 IF ON SKIN: Wash with plenty of water. P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Classification of the substance or mixture Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008. Supplemental Hazard Statements None Other hazards This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

General advice Show this material safety data sheet to the doctor in attendance. If inhaled After inhalation: fresh air. Eye Contact After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses. Swallowed After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.. Skin Contact In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician. Inhalation Remove patient to fresh air, keep warm and at rest and get medical assistance in necessary. Ingestion Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately. Most important symptoms and effects, both acute and delaye The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Indication of any immediate medical attention and special treatment needed No data available

Flammability Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Flash Point Dry powder Dry sand Suitable extinguishing media Water Foam Carbon dioxide (CO2) Dry powder Unsuitable extinguishing media For this substance/mixture no limitations of extinguishing agents are given. Special hazards arising from the substance or mixture Carbon oxides Hydrogen chloride gas Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire. Further information Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system. Hazardous combustion products Fire may cause the evolution of Sulphur oxides, nitrogen oxides. Advice for firefighters Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. Protective Equipment Use personal protective equipment. Specific Hazards Arising from the Chemical Oxides of phosphorus Sodium oxides Not combustible. Fire may cause evolution of: Oxides of phosphorus Ambient fire may liberate hazardous vapours.

Personal precautions, protective equipment and emergency procedures Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8. Spillage Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas dike if needed. Eliminate all ignition sources. Call for assistance on disposal. Enviromental Precaution Do not let product enter drains. Methods and materials for containment and cleaning Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

Advice on protection against fire and explosion Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge. Incompatible materials Keep away from alkalis, strong oxidizing agents and metals. Provide containment walls of adequate capacity to hold any accidental spills. Hygiene measures Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2. Precautions for safe handling Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols. Storage conditions Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons. Light sensitive. Storage class Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated Advice on general occupational hygiene Advice on safe handling Observe label precautions. Change contaminated clothing. Wash hands after working with substance. Requirements for storage Keep in cool and store under shade.

Derived No Effect Level (DNEL)

Application Area Routes of exposure Health effect Value Worker DNEL, longterm inhalation Systemic effects 20 mg/m3 Worker DNEL, acute inhalation Systemic effects 100 mg/m3 Worker DNEL, longterm inhalation Local effects 10 mg/m3 Worker DNEL, acute inhalation Local effects 10 mg/m3

Predicted No Effect Concentration (PNEC)

Compartment Value Fresh water 0,0037 mg/l Sea water 0,00037 mg/l Sewage treatment plant 4,7 mg/l Fresh water sediment 0,177 mg/kg Exposure controls Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Control parameters Ingredients with workplace control parameters Contains no substances with occupational exposure limit

values. Engineering Control Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Eye/face protection Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses Body Protection Protective clothing Skin protection This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: Viton® Minimum layer thickness: 0,7 mm Break through time: 480 min Material tested:Vitoject® (KCL 890 / Aldrich Z677698, Size M) This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Splash contact Material: Nitrile rubber Minimum layer thickness: 0,4 mm Break through time: 30 min Material tested:Camatril® (KCL 730 / Aldrich Z677442, Size M) Respiratory protection Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented. Other Protection Measure Handle in accordance with good industrial hygiene and safety practice. Control of environmental exposure Do not let product enter drains.

Physical state Liquid, clear Colour Colorless, to, light yellow Odour Characteristic Odor Threshold No data available pH No data available Melting Point 18 - -17 °C - lit. Boiling Point 178 - 180 °C - lit. Flash Point 66,0 °C - closed cup Evaporation Rate Not Applicable Flammability (solid, gas) No data available Explosive limits No Data Available Upper/lower flammability or explosive limits 9,2 %(V) / 2,2 %(V) Autoignition temperature 648,0 °C Decomposition temperature No data available Vapour pressure 2,1 hPa at 35,0 °C Density 1,306 g/cm3 at 25 °C - lit. Relative Density No data available Relative vapor density No data available Freezing point No data available Viscosity ca.1,324 mPa.s at 25 °C Partition coefficient log Pow: 3,43 at 25 °C Explosive properties No data available Solubility ca.0,1558 g/l at 25 °C Ignition temperature No information available. Particle characteristics No data available

Reactivity Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical. Stability The product is chemically stable under standard ambient conditions (room temperature) . Possibility of hazardous reactions Violent reactions possible with: Strong oxidizing agents Alkali metals Alkaline earth metals Aluminum Light metals Conditions to avoid Strong heating. Incompatible materials Aluminum, rubber, various plastics Hazardous decomposition products In the event of fire: see section 5

Acute toxicity LD50 Oral - Rat - male and female - 2.000 mg/kg (OECD Test Guideline 401) Remarks: (Regulation (EC) No 1272/2008, Annex VI) Acute toxicity estimate Inhalation - 4 h - 11,1 mg/l - vapor (Expert judgment) Remarks: (Regulation (EC) No 1272/2008, Annex VI) LD50 Dermal - Rabbit - > 10.000 mg/kg Remarks: (RTECS) Skin corrosion/irritation Skin - Rabbit Result: Skin irritation - 24 h (OECD Test Guideline 404) Serious eye damage/eye irritation Remarks: Causes serious eye irritation. Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2) Respiratory or skin sensitization Local lymph node assay (LLNA) - Mouse Result: positive (OECD Test Guideline 429) Toxic Effects on Human May cause damage to the following organs: upper respiratory tract. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant, sensitizer), of ingestion, of inhalation (lung irritant, lung sensitizer). Carcinogenicity No data available Germ cell mutagenicity Test Type: Ames test Test system: Escherichia coli/Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: lymphocyte Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative Test Type: In vivo micronucleus test Species: Mouse Cell type: Bone marrow Application Route: Intraperitoneal injection Method: OECD Test Guideline 474 Result: negative Reproductive toxicity No data available Specific target organ toxicity - single exposure No data available Special Remarks on other Toxi Effects on Humans Acute Potential Health Effects: Skin: Causes skin irritation. May cause skin sensitization, an allergic reation, which becomes evident upon re-exposure to this material. Eyes: Causes eye irritation. Ingestion: Causes gastrointestinal (digestive) tract irritation with nausea, vomiting, and

diarrhea. May be harmful if swallowed. Inhalation: Causes respiratory tract irritation. May cause chemical pneumonitis and pulmonary edema, inflammation, edema of bronchi and larynx. Chronic Potential Health Effects: Repeated or prolonged skin exposure may cause allergic reactions in sensitive individuals. Repeated or prolonged exposure by inhalation may affect respiration and metabolism. Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Repeated dose toxicity - Rat - male and female - Oral - 24 h - NOAEL (No observed adverse effect level) - 60 mg/kg - LOAEL (Lowest observed adverse effect level) - 125 mg/kg Remarks: (ECHA) RTECS: CZ4500000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Bioaccumulative potential Bioaccumulation Cyprinus carpio (Carp) - 56 d - 0,01 mg/l(1,2-Dichlorobenzene) Persistence and degradability Biodegradability aerobic - Exposure time 28 d Result: 0 % - Not readily biodegradable. (OECD Test Guideline 301C)

Toxicity to fish Flow-through test LC50 - Oncorhynchus mykiss (rainbow trout) - 1,58 mg/l - 96 h Remarks: (ECHA) Toxicity to daphnia and other aquatic invertebrates Static test EC50 - Ceriodaphnia dubia (water flea) - 0,66 mg/l - 48 h (US-EPA) Toxicity to algae Growth rate EC50 - Pseudokirchneriella subcapitata (green algae) - 2,2 mg/l - 96 h (US-EPA) Toxicity to bacteria Static test EC50 - activated sludge - 563 mg/l - 3 h (OECD Test Guideline 209) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: sodium hypochlorite solution Mobility in soil No Information available Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Endocrine disrupting properties The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Other adverse effects No data available

Disposal methods The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging Dispose of as unused product. Waste treatment Method See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

UN number ADR/RID: 1591 IMDG: 1591 IATA: 1591 UN proper shipping name ADR/RID:DICHLOROBENZENE IMDG: DICHLOROBENZENE IATA:DICHLOROBENZENE Transport hazard class(es) ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1 Packaging group ADR/RID: III IMDG: III IATA: III Environmental hazards ADR/RID: YES IMDG: YES IATA: NO Further information No data available

Inventory status Components are on the following inventories: Polymaleic acid: - US TSCA, Canadian DSL, EU EINECS, Australian AICS, Korean, Philippine PICCS and Chinese Xi irritant R 36/38 Irritant to eyes & skin R 41 Risk of serious damage to eyes S24/25 Avoid contact with skin and eyes S26/28 In case of contact eyes & skin, rinse with plenty water and seek medical advice Section 312/313: Not listed. Not listed under California proposition 65. Safety, health and environmental regulations/legislation specific for the substance or mixture This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. National legislation Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : ENVIRONMENTAL HAZARDS Other regulations Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work. Chemical Safety Assessment For this product a chemical safety assessment was not carried out

Other Information

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