Product Name	DICHLORO PROPANE
Part Number	RXSOL-19-1115-025

Company Details:

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Chemical Name	CAS	EC number	Weight	Formula
1,2-Dichloropropane	78-87-5	201-152-2		C3H6Cl2

Signal Word Danger Hazard Statements H225 Highly flammable liquid and vapor. H302 Harmful if swallowed. H331 Toxic if inhaled. H350 May cause cancer. Precautionary statements P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor. P308 + P313 IF exposed or concerned: Get medical advice/ attention.
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 Consult a physician. Show this material safety data sheet to the doctor in attendance. If inhaled If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. Eye Contact Flush eyes with water as a precaution. Swallowed Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. Skin Contact Wash off with soap and plenty of water. Take victim immediately to hospital. 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. Suitable

extinguishing media Dry powder Dry sand Unsuitable extinguishing media Do NOT use water jet. Special hazards arising from the substance or mixture Carbon oxides Hydrogen chloride gas Combustible. Further information Use water spray to cool unopened containers. Hazardous combustion products Fire may cause the evolution of Sulphur oxides, nitrogen oxides. Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary. 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 Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. 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 Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. Methods and materials for containment and cleaning Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Advice on protection against fire and explosion Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge. Incompatible materials Keep away from alkalis, strong oxidizing agents and metals. Provide containment walls of adequate capacity to hold any accidental spills. Hygiene measures Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. For precautions see section 2.2. Precautions for safe handling Avoid exposure - obtain special instructions before use.Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Storage conditions Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place. Storage class Storage class (TRGS 510): 3: Flammable liquids 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.

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 Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Body Protection Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.. Skin 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. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. Full contact Material: Fluorinated rubber Minimum layer thickness: 0,7 mm Break through time: 480 min Material tested:Vitoject® (KCL 890 / Aldrich Z677698, Size M) Splash contact Material: Fluorinated rubber Minimum layer thickness: 0,7 mm Break through time: 480 min Material tested:Vitoject® (KCL 890 / Aldrich Z677698, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario. Respiratory protection Where risk assessment shows air-purifying respirators are appropriate use a full face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use

respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Other Protection Measure Handle in accordance with good industrial hygiene and safety practice. Control of environmental exposure Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Gloves Suit

Physical state Liquid, clear Colour Clear Odour No data available Odor Threshold No data available pH No data available Melting Point 100 °C - lit. Boiling Point 95 - 96 °C - lit. Flash Point 15,0 °C Evaporation Rate Not Applicable Flammability (solid, gas) No data available Explosive limits No Data Available Upper/lower flammability or explosive limits 14,5 %(V) / 3,4 %(V) Autoignition temperature 557,0 °C Decomposition temperature No data available Vapour pressure 66,17 - 71,98 hPa at 25 °C Density 1,156 g/cm3 at 25 °C - lit. Relative Density No data available Relative vapor density No data available Freezing point No data available Viscosity 0,757 mm2/s at 20 °C Partition coefficient log Pow: 1,98 - 2,28 Explosive properties No data available Solubility 1,297 g/l at 25 °C Ignition temperature No information available. Particle characteristics No data available

Reactivity No data available Stability Stable under recommended storage conditions. Possibility of hazardous reactions No data available Conditions to avoid Heat, flames and sparks. Incompatible materials Strong oxidizing agents Hazardous decomposition products In the event of fire: see section 5

Acute toxicity LD50 Oral - Rat - 1.947 mg/kg Remarks: (RTECS) LC50 Inhalation - Rat - male and female - 4 h - 9,24 mg/l - vapor Remarks: (ECHA) LD50 Dermal - Rabbit - 10.100 mg/kg Remarks: (ECHA) Skin corrosion/irritation Remarks: No data available Serious eye damage/eye irritation Remarks: No data available Respiratory or skin sensitization In vivo assay - Mouse Result: Does not cause skin sensitization. (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 Presumed to have carcinogenic potential for humans Germ cell mutagenicity Test Type: Ames test Test system: S. typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative 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: In vivo micronucleus test Species: Mouse Cell type: Red blood cells (erythrocytes) Application Route: Oral Method: OPPTS 870.5395 Result: negative Species: Rat Application Route: Oral 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. RTECS: TX9625000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Bioaccumulative potential Bioaccumulation Cyprinus carpio (Carp) - 42 d (1,2-Dichloropropane) Bioconcentration factor (BCF): 0,5 - 7 (OECD Test Guideline 305C) Persistence and degradability Biodegradability aerobic - Exposure time 28 d Result: 11,7 % - Not readily biodegradable. (OECD Test Guideline 301D) Toxicity to fish Flow-through test LC50 - Pimephales promelas (fathead minnow) - 140 mg/l - 96 h (US-EPA) Toxicity to daphnia and other aquatic invertebrates Semi-static test EC50 - Daphnia magna (Water flea) - 2,7 mg/l - 48 h (OECD Test Guideline 202) Toxicity to algae Static test NOEC - Pseudokirchneriella subcapitata - 7,95 mg/l (OECD Test Guideline 201) 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 Toxic to aquatic life.

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 Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

UN number ADR/RID: 1279 IMDG: 1279 IATA: 1279 UN proper shipping name ADR/RID: 1,2-Dichloropropane IMDG: 1,2-Dichloropropane IATA:1,2-Dichloropropane Transport hazard class(es) ADR/RID: 3 IMDG: 3 IATA: 3 Packaging group ADR/RID: II IMDG: II IATA: II Environmental hazards ADR/RID: NO IMDG: NO 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. Authorisations and/or restrictions on use REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : 1,2-Dichloropropane 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. : ACUTE TOXIC : FLAMMABLE LIQUIDS Other regulations 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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