SAFETY DATA SHEET

according to 1907/2006/EC, Article 3

Version no. : 2.1
Prepared on : 30.03.2019
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SECTION 1: Identification of the substance/mixture and of the company/undertaking.

1.1 Product identifiers

Product name	Dichloromethane
Product Number	PSR43586 / PSR37589 / PSR38222 / PSR44967
Brand	PureSynth research chemicals
CAS No.	75-09-2

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses : Laboratory chemicals

1.3 Details of the supplier of the safety data sheet

Company **PureSynth Research Chemicals GmbH.**

64683 Einhausen Marie-Curie-StraBe. 3, Germany

1.4 Emergency telephone number
Worldwide Helpline No.: 1800-8908-260

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008

Skin irritation (Category 2), H315

Eye irritation (Category 2), H319

Carcinogenicity (Category 2), H351

Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336

2.2 Label elements
Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word Warning

Hazard statement(s)

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer.
H336	May cause drowsiness or dizziness

Precautionary statement(s)

P201	Obtain special instructions before use
P302+P352	IF ON SKIN: Wash with plenty of water

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
Supplemental Hazard Statements	none

2.3 **Other hazards:**

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher

SECTION 3: Composition / information on ingredients

3.1 Substances

Common names & Synonyms	**Mol. formula**	**CAS number**
Methylene chloride	CH_2Cl_2	75-09-2
Component	**Classification**	**Concentration**
Dichloromethane	Skin Irrit. 2; Eye Irrit. 2; Carc. 2; STOT SE 3; H315, H319, H351, H336 Concentration limits: 20 %: STOT SE 3, H336;	<= 100 %

SECTION 4: First aid measures

Description of first aid measures

General advice	Consult a physician. Show this 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.
In case of skin contact	Wash off with soap and plenty of water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Most important symptoms and effects, both acute and delayed	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

SECTION 5: Fire fighting measures

Extinguishing media **Suitable extinguishing media**	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide
Special hazards arising from the substance or mixture	Carbon oxides Hydrogen chloride gas
Advice for fire-fighters	Wear self-contained breathing apparatus for fire fighting if necessary.
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

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Methods and materials for containment and cleaning up	Soak up with inert absorbent material and dispose of as hazardous waste. Keep in a suitable, closed containers for disposal.
Reference to other sections	For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. For precautions see section 2.2.
Conditions for safe storage, including any incompatibilities	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. For precautions see section 2.2.
Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls / Personal protection

Control parameters	No data available.
Exposure controls	
Appropriate engineering controls	No data available.
Personal protective equipment:	
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).
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.
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.
Respiratory protection	Where risk assessment shows air-purifying respirators are appropriate use a full face respirator with multi-purpose combination (US) or type AXBEK (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).

Control of environmental exposure	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

Appearance	Form: Liquid Colour: Colourless
Odour	ether-like
pH - Value	No data available
Density	1,325 g/mL at 25 °C
Boiling Point	39.8 - 40 °C
Melting Point	-97 °C
Solubility in water	13.2 g/l at 25 °C
Flash point	- closed cup does not flash
Vapour pressure	584 hPa at 25 °C
Auto -ignition temperature	605 °C at 1.013 hPa - DIN 51794
Vapour density	2.93
Flammability (solid, gas)	No data available
Evaporation rate	0.71
Partition coefficient: n- octanol / water	Log Pow: 1.25 at 20 °C - Bioaccumulation is not expected**.**
Viscosity	No data available
Explosive properties	No data available
Upper / lower flammability or explosive limits	Upper explosion limit: 22 %(V) Lower explosion limit: 13 %(V)
Oxidizing properties	No data available

Other safety information: Relative vapor Density: 2.93

SECTION 10: Stability and reactivity

Reactivity	No data available
Chemical stability	Stable under recommended storage conditions. Contains the following stabilizer(s): 2-methyl-2-butene (0.002 %)
Possibility of hazardous reactions	No data available
Condition to avoid	No data available
Incompatible materials	various plastics, Rubber, Light metals, Metals, Mild steel, Strong oxidizing agents
Hazardous decomposition products	In the event of fire: see section 5

SECTION 11: Toxicological information

Acute toxicity	LD50 Oral - Rat - male and female - > 2.000 mg/kg LC50 Inhalation - Mouse - 4 h - 86 mg/l Symptoms: Possible damages:, mucosal irritations LD50 Dermal - Rat - male and female - > 2.000 mg/kg
Skin corrosion/irritation	Skin - Rabbit

	Result: Irritations - 4 h Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product
Serious eye damage/eye irritation	Eyes - Rabbit Result: Eye irritation Risk of corneal clouding.
Respiratory or skin sensitization	Local lymph node assay (LLNA) - Mouse Result: negative
Germ cell mutagenicity	Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Result: positive Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Result: positive Test Type: In vivo micronucleus test Species: Mouse Cell type: Bone marrow Application Route: Oral Result: negative
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	Inhalation - May cause drowsiness or dizziness. - Central nervous system
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available
Additional Information	Repeated dose toxicity - Rat - male and female - Oral - 104 Weeks - NOAEL (No observed adverse effect level) - 6 mg/kg Repeated dose toxicity - Rat - male and female - Inhalation - 104 Weeks RTECS: PA8050000 Dizziness, Nausea, Vomiting, narcosis, Cough, irritant effects, Unconsciousness, Shortness of breath, respiratory paralysis, somnolence, depressed respiration, CNS disorders, inebriation Risk of corneal clouding. The following applies to aliphatic halogenated hydrocarbons in general: systemic effect: narcosis, cardiovascular disorders. Toxic effect on liver, kidneys. Dichloromethane is metabolized in the body producing carbon monoxide which increases and sustains carboxyhemoglobin levels in the blood, reducing the oxygen-carrying capacity Of the blood. To the best of our knowledge, the chemical, physical, and toxicological properties have not Been thoroughly investigated.

SECTION 12: Ecological information

Toxicity	
Toxicity to fish	flow-through test LC50 - Pimephales promelas (fathead minnow) - 193.00 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates	static test LC50 - Daphnia magna (Water flea) - 27 mg/l - 48 h
Toxicity to algae	No data available
Toxicity to bacteria	static test EC50 - activated sludge - 2.590 mg/l - 40 min (OECD Test Guideline 209)
Persistence and degradability	
Biodegradability	aerobic - Exposure time 28 d Result: 68 % - Readily biodegradable.
Bio accumulative potential	No data available
Bioaccumulation	Cyprinus carpio (Carp) - 6 Weeks - 250 µg/l(Dichloromethane) Bio concentration factor (BCF): 2 – 5.4 (OECD Test Guideline 305) Cyprinus carpio (Carp) - 6 Weeks - 25 µg/l(Dichloromethane) Bio concentration factor (BCF): 6 - 40 (OECD Test Guideline 305)
Mobility in soil	No data available
Results of PBT and vPvB assessment	This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at Levels of 0.1% or higher.
Endocrine disrupting properties	
Other adverse effects	No data available.

SECTION 13: Disposal considerations

Waste treatment methods Products	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 uncleansed containers like the product itself.
Contaminated packaging	Dispose of as unused product.

SECTION 14: Transport information

	UN no.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
ADR / RID	1593	DICHLOROMETHANE	6.1	III	No
IMDG	1593	DICHLOROMETHANE	6.1	III	No
IATA	1593	Dichloromethane	6.1	III	No

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture
This safety datasheet 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 : Dichloromethane

dangerous substances, preparations and articles
(Annex XVII)

Chemical safety assessment
For this product a chemical safety assessment was not carried out.

SECTION 16: Other information

The information in this SDS is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The user must be determined suitability of this information for his application.