Safety Data Sheet

Issue Date: 21-Feb-2014 **Revision Date:** 07-Dec-2017 **Version** 2

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

SDS # M005810-EU
Product Code M005810
Product Name Dichloromethane

Contains Methylene chloride

1.2. Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Recommended Use Dopant for permeation device

1.3. Details of the Supplier of the Safety Data Sheet

Supplier
Rapiscan Systems
23 Frontage Road
Andover, Massachusetts 01810, USA

For further information, please contact

Contact Point Rapiscan Systems: 978-658-3767
Email Address RapTraceMaterialSafetyDataSheets@rapiscansystems.com

1.4. Emergency telephone number

Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Regulation (EC) No 1272/2008

Acute toxicity - Oral	Category 4 - (H302)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Carcinogenicity	Category 2 - (H351)
Specific target organ toxicity — single exposure	Category 3 - (H335, H336)

2.2. Label Elements

Product Identifier
Present
Contains Methylene chloride

Signal Word
Warning

Hazard statements
H302 - Harmful if swallowed
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H351 - Suspected of causing cancer
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness

Precautionary Statements - EU (§28, 1272/2008)
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P330 - Rinse mouth
P501 - Dispose of contents/ container to an approved waste disposal plant
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P332 + P313 - If skin irritation occurs: Get medical advice/attention
P362 - Take off contaminated clothing and wash 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
P337 + P313 - If eye irritation persists: Get medical advice/attention
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P308 + P313 - IF exposed or concerned: Get medical advice/attention
P405 - Store locked up
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P271 - Use only outdoors or in a well-ventilated area
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

2.3. Other Hazards
No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical Name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Methylene chloride	Present	75-09-2	90-100	Carc. 2 (H351) Acute Tox. 4 (H302) (Self-Classification) Skin Irrit. 2 (H315) (Self-Classification) Eye Irrit. 2 (H319) (Self-Classification) STOT-SE 3 (H335, H336) (Self-Classification)	Not determined

Full text of H- and EUH-phrases: see section 16
This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Section 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

General Advice If exposed or concerned: Get medical advice/attention.

Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact	Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off all contaminated clothing and wash it before reuse.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Call a doctor.
Ingestion	Call a poison center or doctor/physician if you feel unwell. Rinse mouth. Never give anything by mouth to an unconscious person.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms	Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure.

4.3. Indication of any Immediate Medical Attention and Special Treatment Needed

Notes to Physician	Treat symptomatically.

Section 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media
Water spray (fog). Alcohol resistant foam. Dry chemical. Carbon dioxide (CO2).

Unsuitable Extinguishing Media
Not determined.

5.2. Special Hazards Arising from the Substance or Mixture
Combustion products may be toxic.

Hazardous Combustion Products	Carbon oxides. Hydrogen chloride.

5.3. Advice for Firefighters
Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions
Use personal protective equipment as required. Avoid breathing vapours or mists. Ensure adequate ventilation, especially in confined areas. Evacuate personnel to safe areas.

For Emergency Responders
Use personal protection recommended in Section 8.

6.2. Environmental Precautions
See Section 12 for additional Ecological Information.

6.3. Methods and Material for Containment and Cleaning Up

Methods for Containment	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods for Clean-Up Soak up with inert absorbent material. Dispose as hazardous waste. Keep in suitable, closed containers for disposal.

6.4. Reference to Other Sections

See Section 13: DISPOSAL CONSIDERATIONS.

Section 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Advice on Safe Handling
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear eye/face protection. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions
Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up. Store containers upright. Keep away from heat. Heat sensitive-store under inert gas.

7.3. Specific End Use(s)

Specific Use(s)
Dopant for permeation device.

Risk Management Methods (RMM)
The information required is contained in this Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

Exposure Limits .

Chemical Name	European Union	United Kingdom	France	Spain	Germany
Methylene chloride 75-09-2	-	STEL: 300 ppm STEL: 1060 mg/m^3 TWA: 100 ppm TWA: 350 mg/m^3 Skin	TWA: 50 ppm TWA: 178 mg/m^3 STEL: 100 ppm STEL: 356 mg/m^3	TWA: 50 ppm TWA: 177 mg/m^3	TWA: 50 ppm TWA: 180 mg/m^3 H*
Chemical Name	**Italy**	**Portugal**	**Netherlands**	**Finland**	**Denmark**
Methylene chloride 75-09-2	-	TWA: 50 ppm	-	TWA: 100 ppm TWA: 350 mg/m^3 STEL: 250 ppm STEL: 880 mg/m^3	TWA: 35 ppm TWA: 122 mg/m^3 Skin
Chemical Name	**Austria**	**Switzerland**	**Poland**	**Norway**	**Ireland**
Methylene chloride 75-09-2	Skin STEL 200 ppm STEL 700 mg/m^3 TWA: 50 ppm TWA: 175 mg/m^3	Skin STEL: 100 ppm STEL: 353 mg/m^3 TWA: 50 ppm TWA: 177 mg/m^3	TWA: 88 mg/m^3	TWA: 15 ppm TWA: 50 mg/m^3 Skin STEL: 22.5 ppm STEL: 75 mg/m^3	TWA: 50 ppm TWA: 174 mg/m^3 STEL: 150 ppm STEL: 522 mg/m^3 Skin

8.2. Exposure Controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits.

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).
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.
Skin and Body Protection	Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of dangerous substance at the specific workplace.
Respiratory Protection	Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99(US) or type P2 (EN 143) 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).

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical state	Liquid		
Appearance	Colorless liquid	**Odour**	Not determined
Colour	Colourless	**Odour Threshold**	Not determined

Property	**Values**	**Remarks • Method**
pH	Not determined	
Melting Point/Freezing Point	-97 °C / -143 °F	
Boiling Point/Boiling Range	39.8-40 °C / 103.6-104 °F	
Flash Point	Not determined	
Evaporation Rate	0.71	
Flammability (Solid, Gas)	Liquid-Not applicable	
Flammability Limits in Air		
Upper Flammability Limits	19%	
Lower Flammability Limit	12%	
Vapour Pressure	470.9 hPa	@ 20°C (68°F)
Vapour Density	2.93	(Air=1)
Relative Density	Not determined	
Water Solubility	Slightly soluble	
Solubility(ies)	Not determined	
Partition Coefficient	Log Pow: 1.25	
Auto-ignition Temperature	556 °C / 1033 °F	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidising Properties	Not determined	

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Not reactive under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of Hazardous Reactions

Possibility of Hazardous Reactions

None under normal processing.

10.4. Conditions to Avoid
Heat, flames and sparks. Avoid direct sunlight.

10.5. Incompatible Materials
Alkali metals. Aluminium. Strong oxidising agents. Amines. Magnesium. Strong acids. Strong bases. Vinyl compounds.

10.6. Hazardous Decomposition Products
Carbon oxides. Hydrogen chloride.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Acute Toxicity

Product Information

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Inhalation Do not inhale.
Eye Contact Avoid contact with eyes.
Skin Contact Avoid contact with skin.
Ingestion Harmful if swallowed.

The following values are calculated based on chapter 3.1 of the GHS document
ATEmix (oral) 1,600.00 mg/kg

Unknown Acute Toxicity

100 % of the mixture consists of ingredient(s) of unknown toxicity.
0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
100 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour).
100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Methylene chloride	= 1600 mg/kg (Rat)		= 53 mg/L (Rat) 6 h = 76000 mg/m^3 (Rat) 4 h

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Sensitisation Not classified.

Germ cell mutagenicity Not classified.

Carcinogenicity Suspected of causing cancer.

Chemical Name	European Union
Methylene chloride	Carc. 2

Reproductive toxicity Not classified.

STOT - single exposure May cause respiratory irritation. May cause drowsiness or dizziness.

STOT - repeated exposure Not classified.

Aspiration hazard Not classified.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Methylene chloride	500: 72 h Pseudokirchneriella subcapitata mg/L EC50 500: 96 h Pseudokirchneriella subcapitata mg/L EC50	193: 96 h Lepomis macrochirus mg/L LC50 static 193: 96 h Lepomis macrochirus mg/L LC50 flow-through 262 - 855: 96 h Pimephales promelas mg/L LC50 static 140.8 - 277.8: 96 h Pimephales promelas mg/L LC50 flow-through	190: 48 h Daphnia magna mg/L EC50 1532 - 1847: 48 h Daphnia magna mg/L EC50 Static

12.2. Persistence and Degradability

Not determined.

12.3. Bioaccumulative Potential

Chemical Name	Partition Coefficient
Methylene chloride	1.25

12.4. Mobility in Soil

Mobility

Not determined.

12.5. Results of PBT and vPvB Assessment

Not determined.

12.6. Other Adverse Effects

Not determined.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Waste from Residues / Unused Products Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Improper disposal or reuse of this container may be dangerous and illegal.

Section 14: TRANSPORT INFORMATION

IMDG

14.1 UN/ID No UN1593
14.2 Proper Shipping Name Dichloromethane
14.3 Hazard Class 6.1
14.4 Packing Group III

RID

14.1 UN/ID No UN1593
14.2 Proper Shipping Name Dichloromethane
14.3 Hazard Class 6.1
14.4 Packing Group III

ADR

14.1	**UN/ID No**	UN1593
14.2	**Proper Shipping Name**	Dichloromethane
14.3	**Hazard Class**	6.1
14.4	**Packing Group**	III

IATA

14.1	**UN/ID No**	UN1593
14.2	**Proper Shipping Name**	Dichloromethane
14.3	**Hazard Class**	6.1
14.4	**Packing Group**	III

Section 15: REGULATORY INFORMATION

15.1. Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

National Regulations

France

Occupational Illnesses (R-463-3, France)

Chemical Name	French RG number	Title
Methylene chloride 75-09-2	RG 12	

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work**.**

Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

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Component	TSCA	DSL/NDSL	EINECS/ELINCS	PICCS	ENCS	IECSC	AICS	KECL
Methylene chloride 75-09-2 (90-100)	X	X	X	X	Present	X	X	Present

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under section 3
H302 - Harmful if swallowed
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 + H336 - May cause respiratory irritation, and drowsiness or dizziness
H351 - Suspected of causing cancer if inhaled

Legend
SVHC: Substances of Very High Concern for Authorisation:

Legend	**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**		
TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Classification Procedure
Calculation method

Issue Date: 21-Feb-2014

Revision Date: 07-Dec-2017

Revision Note: Regulatory update.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006, as amended by Regulation (EU) No. 453/2010

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet