



SDS-1086

SAFETY DATA SHEET

Section 1. Product and Company Identification

Product Name: RM-3 Mixture
Product Number(s): 1086
Source: Synthetic or plant
Product Use: This product is to be used for research only. It is not intended for drug or diagnostic use, human consumption or to be used in food or food additives.

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Section 2. Hazards Identification

Emergency Overview:
Target Organs: Eyes, skin, liver, cardiovascular, central nervous system and respiratory system.
GHS Classification: Acute toxicity (oral), Category 4
Skin corrosion/irritation, Category 2
Serious eye damage/eye irritation, Category 2B
Carcinogenicity, Category 2
Specific target organ toxicity- single exposure, Category 3
Specific target organ toxicity - repeated exposure, Category 2

GHS Label Elements:
Pictogram(s):



Signal Word: **Warning**

Health Code
H302 Harmful if swallowed
H315 Causes skin irritation.
H320 Causes eye irritation.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation; or
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.

Prevention Code	Prevention Statement(s):
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product.
P280	Wear protective gloves.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P281	Use personal protective equipment as required.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
Response Code	Response Statement(s):
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330	Rinse mouth
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P321	Specific treatment (see supplemental first aid instructions).
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.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
Storage Code	Storage Statement(s):
P405	Store locked up.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
Disposal Code	Disposal Statement(s):
P501	Disposal of contents/container in accordance to local/regional/national/international regulations.

Section 3. Composition/Information on Ingredients

Product Name	CAS Number	Percent
Methylene chloride	75-09-2	98.15%
Methyl tetradecanoate	124-10-7	0.0185%
Methyl hexadecanoate	112-39-0	0.074%
Methyl octadecanoate	112-61-8	0.055%
Methyl <i>cis</i> -9-octadecenoate	112-62-9	0.833%
Methyl <i>cis</i> -9,12-octadecadienoate	112-63-0	0.278%
Methyl eicosanoate	1120-28-1	0.055%
Methyl <i>cis</i> -9,12,15-octadecatrienoate	301-00-8	0.055%
Methyl docosanoate	929-77-1	0.055%
Methyl <i>cis</i> -13-docosenoate	1120-34-9	0.37%
Methyl tetracosanoate	2442-49-1	0.055%

Section 4. First Aid Measures

Inhalation:

Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately. Consult a physician.

Skin:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Thoroughly wash or discard clothing and shoes before reuse.

Eyes:

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel.

Ingestion:

If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get medical attention immediately.

Section 5. Fire Fighting Measures**Suitable extinguishing media:**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Specific hazards arising from the chemical:

Methylene chloride may burn, but does not readily ignite

Special protective actions for fire fighters:

Evacuate area and fight fire from a safe distance. Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

Special protective equipment for fire fighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

Section 6. Accidental Release Measures**Personal precautions:**

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate personal protective equipment.

Environmental precautions:

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewer. Inform the relevant authorities if the product has caused environmental pollution (sewer, waterways, soil or air).

Methods and Materials for containment and cleaning up:

Stop leak if without risk. Prevent entry into sewers, water sources, basements or confined spaces. Contain and collect spillage with inert absorbent material and place in container for disposal according to local regulations. Call for assistance on disposal.

Section 7. Handling and Storage**Precautions for safe handling:**

Avoid contact with eyes, skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Store in a tightly closed container. Keep sealed when not in use. Wear appropriate personal protective equipment.

Conditions for safe storage, including incompatibilities:

Recommended storage temperature: -20°C. Store in a tightly closed container. Separate from oxidizing materials.

Section 8. Exposure Controls/Personal Protection

Product Name	CAS Number	Type	Exposure Limits	Source
Methylene chloride	75-09-2	TWA (8Hr)	50 ppm	USA (ACGIH)
		TWA	25 ppm	USA (OSHA)
		TWA	50 ppm	Australia
		TWA	50 ppm	Belgium

TWA	50 ppm	Canada
TWA	50 ppm	Korea
TWA	10 mg/m ³	Hungary
TWA	50 ppm	New Zealand
VME	50 ppm	France
TWA	35 ppm	Sweden
TWA	100 ppm	UK

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Personal Protective Equipment:

Respiratory protection:

Use only in a well ventilated area. Wear an appropriate NIOSH/MSHA approved air-purifying respirator. If warranted, wear a positive pressure air-supplied respirator in situations where there may be potential for airborne exposure.

Hand protection:

Chemical-resistant, impervious gloves should be worn at all times when handling chemical products.

Recommended: Nitrile rubber

Eye protection:

Safety eyewear should be worn at all times to avoid exposure to liquid splashes, mists or dusts.

Recommended: Splash goggles

Skin protection:

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. Recommended: Lab coat

Section 9. Physical and Chemical Properties

Appearance:	Liquid
Odor:	Chloroform-like odor
Odor threshold:	No data available
pH:	No data available
Melting/Freezing point:	-95°C (-139°F)
Initial boiling point and boiling range:	40°C (104°F)
Flash point:	No data available
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper/Lower flammability or explosive limit:	UEL 23% LEL 13%
Vapor pressure (mmHg):	350 mmHg
Vapor density (Air=1):	2.9
Relative density (water=1):	1.3
Solubility (ies):	Methylene chloride, ethyl ether
Partition coefficient (n-octanol/water) as log Pow:	1.25
Auto-ignition temperature:	556°C
Decomposition temperature:	No data available
Viscosity:	No data available

Section 10. Stability and Reactivity

Reactivity:

Stable under recommended storage conditions.

Chemical stability:

Stable under recommended storage conditions.

Possibility of hazardous reaction:

Under normal conditions of storage and use, hazardous reaction will not occur.

Conditions to avoid:

Alkali metals, strong oxidizing agents, strong acid and bases, vinyl compounds, magnesium and aluminum.

Incompatible materials:

Strong oxidizers; caustics; chemically active metals such as aluminum, magnesium powder, sodium and potassium; concentrated nitric acid.

Hazardous decomposition products:

Carbon oxides, Hydrogen chloride gas formed under fire conditions.

Section 11. Toxicological Information

Acute toxicity:

Methylene chloride

LC50: Inhalation - Rat – 76,000 mg/m³ @ 4 hours exposure time

LD50: Oral - Rat – 1,500 mg/kg

Skin corrosion / irritation:

Skin-rabbit-skin irritation-24 h

Serious eye damage / irritation:

Eyes-rabbit-Mild eye irritation-24 h

Respiratory or skin sensitization:

No data available

Germ cell mutagenicity:

Genotoxicity in vivo-rat-oral (DNA damage)

Carcinogenicity:

Limited evidence of carcinogenicity in animal studies.

IARC Rating: 2B (Possibly carcinogenic to humans Methylene chloride)

NTP Rating: 2 (Reasonably anticipated to be a human carcinogen Methylene chloride)

Reproductive toxicity:

No data available

Specific target organ toxicity - single exposure:

Irritation to the eyes, skin and the respiratory tract. Exposure could cause lowering of consciousness.

Specific target organ toxicity - repeated exposure:

Repeated or prolonged contact with skin can cause dermatitis. May have effects on the central nervous system and liver. Possible carcinogenic to humans.

Aspiration hazard:

No data available

Section 12. Ecological Information

Toxicity:**Fish**

LC100	Leuciscus idus melantous (Carp)	541 mg/L	48 Hr
LC50	Danio rerio (Zebra Danio)	254 mg/L	48 Hr
LC50	Carassius auratus (Goldfish)	420 mg/L	24 Hr

Persistence and degradability:

No data available

Bioaccumulative potential:

No data available

Bioaccumulation:

No data available

Mobility in soil:

No data available

Other adverse effects:

No data available

Section 13. Disposal Consideration

Disposal methods:

Observe all federal, state, and local environmental regulations.

Contact a licensed professional waste disposal service to dispose of this material.

Section 14. Transportation Information

Transportation quantity: This item shipped as an excepted quantity.

DOT (US)

UN Number:	1593
UN Proper shipping name:	Dichloromethane
Transportation hazard class(es):	6.1
Packaging group (if applicable):	III
Reportable Quantity (RQ):	1000 lbs
Environmental hazards:	No
Marine pollutant:	No

Land Transport ADR/RID

UN Number:	1593
UN Proper shipping name:	Dichloromethane
Transportation hazard class(es):	6.1
Packaging group (if applicable):	III
Environmental hazards:	No
Marine pollutant:	No

Maritime Transport IMDG

UN Number:	1593
UN Proper shipping name:	Dichloromethane
Transportation hazard class(es):	6.1
Packaging group (if applicable):	III
Environmental hazards:	No
Marine pollutant:	No

Air Transport ICAO/IATA

UN Number:	1593
UN Proper shipping name:	Dichloromethane
Transportation hazard class(es):	6.1
Packaging group (if applicable):	III
Environmental hazards:	No
Marine pollutant:	No

Section 15. Regulatory Information

DSL/NDSL status:

This product contains the following components that are on the Canadian NDSL list.

Component	CAS Number
Methyl eicosanoate	1120-28-1
Methyl docosanoate	929-77-1
Methyl <i>cis</i> -13-docosenoate	1120-34-9

This product contains the following components that are on the Canadian DSL list.

Component	CAS Number
Methylene chloride	75-09-2
Methyl tetradecanoate	124-10-7
Methyl hexadecanoate	112-39-0

Methyl octadecanoate	112-61-8
Methyl <i>cis</i> -9-octadecenoate	112-62-9
Methyl <i>cis</i> -9-12-octadecadienoate	112-63-0
Methyl <i>cis</i> -9,12,15-octadecatrienoate	301-00-8

TSCA

This product contains the following components that are listed on the TSCA inventory.

Component	CAS Number
Methyl eicosanoate	1120-28-1
Methyl docosanoate	929-77-1
Methyl <i>cis</i> -13-docosenoate	1120-34-9
Methylene chloride	75-09-2
Methyl tetradecanoate	124-10-7
Methyl hexadecanoate	112-39-0
Methyl octadecanoate	112-61-8
Methyl <i>cis</i> -9-octadecenoate	112-62-9
Methyl <i>cis</i> -9-12-octadecadienoate	112-63-0
Methyl <i>cis</i> -9,12,15-octadecatrienoate	301-00-8

SARA 302 Components:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards:

Acute health hazard, chronic health hazard

California Hazardous Substance List:

Component	CAS Number
Methylene chloride	75-09-2

Massachusetts Right To Know Components:

Component	CAS Number
Methylene chloride	75-09-2

New Jersey Right To Know Components:

Component	CAS Number
Methylene chloride	75-09-2

Pennsylvania Right To Know Components:

Component	CAS Number
Methylene chloride	75-09-2

California Prop. 65 Components:

This product contains a chemical known to the state of California to cause cancer.

Component	CAS Number
Methylene chloride	75-09-2

Section 16. Other Information

Manufacturer Supplementary Notes:

The statements contained herein are based upon technical data that MATREYA LLC believes to be reliable, are offered for information purposes only and as a guide to the appropriate precautionary and emergency handling of the material by a properly trained person having the necessary technical skills. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use, storage and disposal of these materials and the safety and health of employees and customers and the protection of the environment. MATREYA LLC MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR PARTICULAR USE, WITH RESPECT TO THE INFORMATION HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. MATREYA LLC ASSUMES NO LIABILITY FOR ANY USE OF THESE CHEMICALS BY THE END USER.

Revision Summary:	10/12/2012	Version 1: New
	03/04/2014	Version 2: Revised product use statement.
	03/30/2015	Version 3: Changed company address.
	7/28/2017	Version 4: Removed Chemtrec International number.
	7/16/2018	Version 5: Reviewed, no changes.
	4/6/2020	Version 6: Updated logo, added Chemtrec international number.

Reference:

Centers for Disease Control and Prevention. "Methane,dichloro RTECS." National Institute for Occupational Safety and Health. 2011. July 12, 2011. <<http://www.cdc.gov/niosh-rtecs/MN8D8678.html>>.

Kegley, S.E., Hill, B.R., Orme S., Choi A.H., "PAN Pesticide Database." Pesticide Action Network, North America (San Francisco, CA, 2010), <http://www.pesticideinfo.org>.