Safety Data Sheet
Methylene chloride Tech

Version 1.0 Revision Date: 02/03/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Methylene chloride Tech
Product Use Description : Industrial chemical

Manufacturer or supplier's details

Company : Nexeo Solutions LLC
Address 3 Waterway Square Place Suite 1000
Woodlands, Tx. 77380
United States of America

Emergency telephone number:
Health North America: 1-855-NEXEO4U (1-855-639-3648)
Health International: 1-855-NEXEO4U (1-855-639-3648)
Transport North America: CHEMTREC 800.424.9300

Additional Information: : Responsible Party: Product Safety Group
E-Mail: msds@nexeosolutions.com
SDS Requests: 1-855-429-2661
SDS Requests Fax: 1-281-500-2370
Website: www.nexeosolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Skin irritation : Category 2

Eye irritation : Category 2A

Germ cell mutagenicity : Category 2

Carcinogenicity : Category 2

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

Specific target organ toxicity - repeated exposure (Inhalation) : Category 2 (Central nervous system, Liver, Blood)

Aspiration hazard : Category 1

GHS Label element

Hazard pictograms :

Signal word : Danger

Hazard statements : H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure if inhaled.

Precautionary statements : **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear eye protection/ face protection.
P280 Wear protective gloves.
P281 Use personal protective equipment as required.
Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician 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.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P331 Do NOT induce vomiting.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.

Potential Health Effects

Carcinogenicity:

IARC	Group 2B: Possibly carcinogenic to humans	
	75-09-2	Methylene chloride
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.	
OSHA	OSHA specifically regulated carcinogen	
	75-09-2	Methylene chloride
NTP	Reasonably anticipated to be a human carcinogen	
	75-09-2	Methylene chloride

Emergency Overview

DANGER!	
Appearance	liquid
Colour	clear, colourless
Odour	mild, sweet
Hazard Summary	No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

CAS-No.	Chemical Name	Concentration (%)
75-09-2	Methylene chloride	90 - 100

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Symptoms of poisoning may appear several hours later.

Do not leave the victim unattended.

If inhaled	:	Consult a physician after significant exposure. If unconscious place in recovery position and seek medical advice.
In case of skin contact	:	If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact	:	Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	:	Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Dry chemical Carbon dioxide (CO2) Foam Water spray
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during firefighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	Carbon oxides Chlorine compounds
Specific extinguishing methods	:	Use a water spray to cool fully closed containers.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

NFPA Flammable and Combustible Liquids Classification:
Combustible Liquid Class IIIB

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Ensure adequate ventilation.
Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	:	Avoid formation of aerosol. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Container may be opened only under exhaust ventilation hood. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	:	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. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
75-09-2	Methylene chloride	TWA	50 ppm	ACGIH

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Methylene chloride	75-09-2	Dichloromethane	In urine	End of shift (As soon as possible after exposure ceases)	0.3 mg/l	ACGIH BEI

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.
In the case of vapour formation use a respirator with an approved filter.

Hand protection
Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	clear, colourless
Odour	:	mild, sweet
Odour Threshold	:	200 - 300 ppm
pH	:	No data available
Freezing Point (Melting point/range)	:	-95 °C (-139 °F)
Boiling Point (Boiling point/boiling range)	:	40 °C (104 °F)
Flash point	:	201 °C (394 °F)
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Burning rate	:	No data available
Upper explosion limit	:	19 %(V) (100 °C) (212 °F)
Lower explosion limit	:	12 %(V) (100 °C) (212 °F)
Vapour pressure	:	353.2 mmHg @ 20 °C (68 °F)
Relative vapour density	:	2.93(Air = 1.0)
Relative density	:	1.31 - 1.32 @ 25 °C (77 °F) Reference substance: (water = 1)
Density	:	Approximate 1.325 g/ml @ 25 °C (77 °F)
Bulk density	:	No data available
Solubility(ies)		
Water solubility	:	slightly soluble

Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	log Pow: 1.25
Auto-ignition temperature	:	556.1 °C
Thermal decomposition	:	No data available
Viscosity		
Viscosity, dynamic	:	0.41 mPa.s @ 25 °C (77 °F)

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No hazards to be specially mentioned.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	Bases Oxygen Potassium Strong oxidizing agents reactive metals such as aluminum and magnesium
Hazardous decomposition products	:	hydrogen chloride Chlorine Phosgene carbon dioxide and carbon monoxide

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Components:

75-09-2:

Acute oral toxicity	:	LD50 (rat): > 2,000 mg/kg Method: OECD Test Guideline 401

GLP: yes

Acute inhalation toxicity : LC50 (rat): 52 mg/l

Acute dermal toxicity : LD50 (rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes

Skin corrosion/irritation

Product:
Remarks: Irritating to skin.

Components:
75-09-2:
Species: rabbit
Result: Irritating to skin.

Serious eye damage/eye irritation

Product:
Remarks: Irritating to eyes.

Components:
75-09-2:
Species: rabbit
Result: Irritating to eyes.
Exposure time: 24 h
GLP: no

Respiratory or skin sensitisation

Components:
75-09-2:
Test Type: lymph node assay
Species: mouse
Method: OECD Test Guideline 429
Result: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Components:
75-09-2:
Genotoxicity in vitro : Test Type: Ames test
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471

Result: positive
GLP: no

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Application Route: Oral
Exposure time: once
Dose: 1250, 2500, 4000 mg/kg bw
Method: OECD Test Guideline 474
Result: negative
GLP: yes

Germ cell mutagenicity-Assessment : In vitro tests showed mutagenic effects

Carcinogenicity

Components:

75-09-2:
Species: rat
Application Route: Inhalation
Dose: 0, 2000, and 4000 ppm
LOAEL: 2,000

Method: OECD Test Guideline 451
Symptoms: Tumors

Carcinogenicity - Assessment : Suspected human carcinogens

Reproductive toxicity

Components:

75-09-2:
Effects on fertility : Species: rat
Application Route: Inhalation
Dose: 100, 500 and 1500 ppm
Duration of Single Treatment: 6 h
Frequency of Treatment: 5 days/week
General Toxicity - Parent: NOAEC: > 1,500 ppm
General Toxicity F1: NOAEC: > 1,500 ppm
Method: OECD Test Guideline 416
GLP: yes

Effects on foetal development : Species: rat
Application Route: Inhalation
Dose: 1250 ppm
Duration of Single Treatment: 7 h
Frequency of Treatment: 7 days/week
General Toxicity Maternal: LOAEC: 1,226 ppm

Teratogenicity: NOAEC: 1,226 ppm
Developmental Toxicity: 1,226 ppm
Method: OECD Test Guideline 414
GLP: no

Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fertility, and on development, based on animal experiments.

STOT - single exposure

Product: No data available

Components:

75-09-2:

Exposure routes:	Target Organs:	Assessment:	Remarks:
Inhalation	Respiratory system	May cause respiratory irritation., The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.	
Inhalation	Central nervous system	May cause drowsiness or dizziness., The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.	

STOT - repeated exposure

Product: No data available

Components:

75-09-2:

Exposure routes:	Target Organs:	Assessment:	Remarks:
Inhalation	Central nervous system, Liver, Blood	May cause damage to organs through prolonged or repeated exposure., The substance or mixture is classified as specific target	

		organ toxicant, repeated exposure, category 2.	

Repeated dose toxicity

Components:

75-09-2:
Species: rat, male and female
NOAEL: 200
Application Route: inhalation (vapour)
Exposure time: 2 yr
Number of exposures: 6 h/d, 5 d/wk
Dose: 50, 200, and 500 ppm
Target Organs: Liver

Aspiration toxicity

Product:
May be fatal if swallowed and enters airways.

Components:

75-09-2:
May be fatal if swallowed and enters airways.

Further information

Product:
Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

75-09-2:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l Exposure time: 96 h GLP: no
Toxicity to daphnia and	:	EC50 (Daphnia magna (Water flea)): 27 mg/l

other aquatic invertebrates		Exposure time: 48 h Test Type: static test
Toxicity to algae	:	Remarks: No data available
Ecotoxicology Assessment Acute aquatic toxicity	:	Harmful to aquatic life.
Chronic aquatic toxicity	:	Harmful to aquatic life with long lasting effects.

Persistence and degradability

Components:

75-09-2:

Biodegradability	:	aerobic Inoculum: Activated sludge, domestic, non-adapted Biodegradation: 68 % Exposure time: 28 d Method: OECD Test Guideline 301D GLP: yes Remarks: Readily biodegradable

Bioaccumulative potential

Components:

75-09-2:

Partition coefficient: n-octanol/water	:	Pow: 1.25

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation	40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information	:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations.
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact NEXEO's Environmental Services Group at 800-637-7922.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

IATA (International Air Transport Association): UN1593, DICHLOROMETHANE, 6.1, III, Flash Point:201 °C(394 °F)

IMDG (International Maritime Dangerous Goods): UN1593, DICHLOROMETHANE, 6.1, III

DOT (Department of Transportation): UN1593, DICHLOROMETHANE, 6.1, III

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : Aspiration hazard, Carcinogen, Moderate skin irritant, Moderate eye irritant, Moderate respiratory irritant, Mutagen

WHMIS Classification : D1B: Toxic Material Causing Immediate and Serious Toxic Effects
D2A: Very Toxic Material Causing Other Toxic Effects
D2B: Toxic Material Causing Other Toxic Effects

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Methylene chloride	75-09-2	1000	1000

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Oxirane, 2-methyl-	75-56-9	100	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 311/312 Hazards : Chronic Health Hazard
Acute Health Hazard

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

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

75-09-2 Methylene chloride 100 %

Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

75-09-2 Methylene chloride 100 %
75-56-9 Oxirane, 2-methyl- 0.05 %

The following chemical(s) are listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F):

75-56-9 Oxirane, 2-methyl- 0.05 %

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

75-09-2 Methylene chloride 100 %
75-56-9 Oxirane, 2-methyl- 0.05 %

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

75-56-9 Oxirane, 2-methyl- 0.05 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

75-56-9 Oxirane, 2-methyl- 0.05 %

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

75-09-2 Methylene chloride 90 - 100 %
75-56-9 Oxirane, 2-methyl- 0 - 0.1 %

Pennsylvania Right To Know

75-09-2 Methylene chloride 90 - 100 %
75-56-9 Oxirane, 2-methyl- 0 - 0.1 %

New Jersey Right To Know

75-09-2	Methylene chloride	90 - 100 %

California Prop 65 WARNING! This product contains a chemical known to the State of California to cause cancer.

75-09-2	Methylene chloride
75-56-9	Oxirane, 2-methyl-

The components of this product are reported in the following inventories:

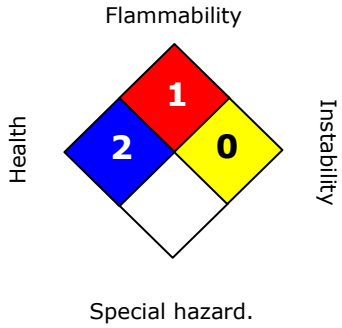
Switzerland. New notified substances and declared preparations	:	y (positive listing) (The formulation contains substances listed on the Swiss Inventory)
United States TSCA Inventory	:	y (positive listing) (On TSCA Inventory)
Canadian Domestic Substances List (DSL)	:	y (positive listing) (All components of this product are on the Canadian DSL.)
Australia Inventory of Chemical Substances (AICS)	:	y (positive listing) (On the inventory, or in compliance with the inventory)
New Zealand. Inventory of Chemical Substances	:	y (positive listing) (On the inventory, or in compliance with the inventory)
Japan. ENCS - Existing and New Chemical Substances Inventory	:	y (positive listing) (On the inventory, or in compliance with the inventory)
Japan. ISHL - Inventory of Chemical Substances (METI)	:	y (positive listing) (On the inventory, or in compliance with the inventory)
Korea. Korean Existing Chemicals Inventory (KECI)	:	y (positive listing) (On the inventory, or in compliance with the inventory)

Philippines Inventory of Chemicals and Chemical Substances (PICCS)	:	y (positive listing) (On the inventory, or in compliance with the inventory)
China. Inventory of Existing Chemical Substances in China (IECSC)	:	y (positive listing) (On the inventory, or in compliance with the inventory)

SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	**2***
FLAMMABILITY	**1**
PHYSICAL HAZARD	**0**

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 =Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by NEXEO™ Solutions EHS Product Safety Department (1-855-429-2661) MSDS@nexeosolutions.com.

Legecy MSDS: R0003736

Material number:
16062162, 743780, 637697, 590261, 554098, 554087, 554340, 554302, 551440, 88414, 56584, 73129, 56747, 104544, 88590, 73128, 104545, 71782, 55824, 89867

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philipines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Compositon, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50		Lethal Concentration 50%	