Printing date 11/13/2015 Reviewed on 01/19/2015

1 Identification

· Product identifier

· Trade name: <u>SR-97</u>

· Article number: SR-97

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier: Chemical Consultants Inc. 1850 Wild Turkey Circle Corona, CA 92880

USA

+1 (951) 735-5511 ncollins@ccidom.com

- · Information department: Product safety department
- · Emergency telephone number: INFOTRAC 1-800-535-5053

2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

- · Label elements
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms





GHS07 GHS08

- · Signal word Warning
- · Hazard-determining components of labeling:

dichloromethane tetrachloroethylene

· Hazard statements

H302 Harmful if swallowed.H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

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(Contd. of page 1) H351 Suspected of causing cancer. H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness. H373 May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P280 Wear protective gloves.

P280 Wear eye protection / face protection. P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. P271

Contaminated work clothing must not be allowed out of the workplace. P272

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P363 Wash contaminated clothing before reuse.

P308+P313 IF exposed or concerned: Get medical advice/attention. P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention. P314 Get medical advice/attention if you feel unwell.

P330 Rinse mouth.

IF ON SKIN: Wash with plenty of water. P302+P352

Take off contaminated clothing and wash it before reuse. P362+P364

Store locked up. P405

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 2Fire = 0Reactivity = 0

· HMIS-ratings (scale 0 - 4)



- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · **Description:** Mixture of the substances listed below with nonhazardous additions.

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		(Contd. of page 2)
· Dangero	us components:	
75-09-2	dichloromethane	90-100%
127-18-4	tetrachloroethylene	0-10%

4 First-aid measures

- · Description of first aid measures
- · General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: Immediately call a doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

- · Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Mouth respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Mount respiratory protective device.

· Environmental precautions:

Prevent from spreading (e.g. by damming-in or oil barriers).

For large spills: Do not allow to enter sewers/ surface or ground water.

· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

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7 Handling and storage

- · Handling:
- · Precautions for safe handling

Store in cool, dry place in tightly closed receptacles.

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

- · Information about protection against explosions and fires: Keep respiratory protective device available.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

75-09-2 dichloromethane

PEL Short-term value: 125 ppm Long-term value: 25 ppm see 29 CFR 1910.1052 REL See Pocket Guide App. A

TLV Long-term value: 174 mg/m³, 50 ppm

BEI

127-18-4 tetrachloroethylene

PEL Long-term value: 100 ppm

Ceiling limit value: 200; 300* ppm

*5-min peak in any 3 hrs

REL Minimize workplace exp. concs.; Pocket Guide App. A

TLV Short-term value: 685 mg/m³, 100 ppm Long-term value: 170 mg/m³, 25 ppm

BEI

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Chamical identity	Tymo	Evnosuro Lir	mit values	Source
Chemical identity Methylene Chloride	Type	Exposure Lir 50 ppm	nit values	US. ACGIH Threshold Limit Values (03
				2013)
	STEL	125 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) (03 2012)
	OSHA_A CT	12.5 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
	TWA	25 ppm		(03 2012) US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) (03 2012)
	ST ESL		3,600 μg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	AN ESL		350 μg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	ST ESL		1,100 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	AN ESL		100 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	TWA PEL	25 ppm	87 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012)
	STEL	125 ppm	435 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012)
	TWA A LV	12.5 ppm		US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012)
Tetrachloroethylene	TWA	25 ppm		US. ACGIH Threshold Limit Values (03 2013)
	STEL	100 ppm		US. ACGIH Threshold Limit Values (03 2013)
	TWA	25 ppm	170 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	100 ppm	<u>G</u>	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	Ceiling	200 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	MAX. CONC	300 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	TWA	25 ppm	170 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	AN ESL		26 μg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	ST ESL		2,000 μg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	ST ESL		300 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	AN ESL		3.8 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
_	Ceiling	300 ppm		US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012)
	TWA PEL	25 ppm	170 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012)
	STEL	100 ppm	685 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012)

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· Ingredients with biological limit values:

75-09-2 dichloromethane

BEI 0.3 mg/L

Medium: urine Time: end of shift

Parameter: Dichloromethane (semi-quantitative)

127-18-4 tetrachloroethylene

BEI 3 ppm

Medium: end-exhaled air Time: prior to shift

Parameter: Tetrachloroethylene

0.5 mg/L Medium: blood Time: prior to shift

Parameter: Tetrachloroethylene

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:

Safety glasses



Tightly sealed goggles

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Information on basic physical and of	chemical properties	
General Information		
Appearance: Form:	Fluid	
Color:	According to product specification	
Odor:	Characteristic	
Odor threshold:	Not determined.	
pH-value:	Not determined.	
Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	40 °C (104 °F)	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Not applicable.	
Ignition temperature:	605 °C (1121 °F)	
Decomposition temperature:	Not determined.	
Auto igniting:	Product is not selfigniting.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	13.0 Vol %	
Upper:	22.0 Vol %	
Vapor pressure at 20 °C (68 °F):	453 hPa (340 mm Hg)	
Density at 20 °C (68 °F):	1.37144 g/cm³ (11.445 lbs/gal)	
Relative density	Not determined.	
Vapor density	Not determined.	
Evaporation rate	Not determined.	
Solubility in / Miscibility with		
Water:	Not miscible or difficult to mix.	
Partition coefficient (n-octanol/wate	er): Not determined.	
Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Solvent content:		
Organic solvents:	100.0 %	
VOC content:	0.0 g/l / 0.00 lb/gl	
Other information	No further relevant information available.	

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.

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- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

· LD/LC50	· LD/LC50 values that are relevant for classification:			
75-09-2 di	75-09-2 dichloromethane			
Oral	LD50	1600 mg/kg (rat)		
Inhalative	LC50/4 h	88 mg/l (rat)		
127-18-4 t	127-18-4 tetrachloroethylene			
Oral	LD50	2629 mg/kg (rat)		

- Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitization: Sensitization possible through skin contact.
- · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: Harmful

Irritant

· Carcinogenic categories

· IARC (In	ternational Agency for Research on Cancer)	
75-09-2	dichloromethane	2 <i>B</i>
127-18-4	tetrachloroethylene	2A
	tional Toxicology Program)	
75-09-2	dichloromethane	R
127-18-4	tetrachloroethylene	R
	a (Occupational Safety & Health Administration)	
75-09-2 d	dichloromethane	

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

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· Other adverse effects No further relevant information available.

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13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Dispose of content and/or container in accordance with local, regional, national and/or international regulations.

- · Uncleaned packagings:
- · Recommendation:

Dispose of content and/or container in accordance with local, regional, national and/or international regulations

Transport information	
UN-Number DOT, IMDG, IATA	UN2810
UN proper shipping name DOT, IATA	Toxic, liquids, organic, n.o.s. (Dichlorometha
IMDG	Tetrachloroethylene) TOXIC LIQUID, ORGANIC, N.O.S. (DICHLOROMETHAL TETRACHLOROETHYLENE)
Transport hazard class(es)	
DOT	
TOXIC	
Class	6.1 Toxic substances
Label	6.1
IMDG, IATA	
Class	6.1 Toxic substances
Label	6.1
Packing group DOT, IMDG, IATA	III
Environmental hazards: Marine pollutant:	No
Special precautions for user EMS Number:	Warning: Toxic substances F-A,S-A
Segregation groups	Liquid halogenated hydrocarbons
Stowage Category	A
Stowage Code	SW2 Clear of living quarters.

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	(Contd. of page
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
\cdot DOT	
· Quantity limitations	On passenger aircraft/rail: 60 L
	On cargo aircraft only: 220 L
· IMDG	
· Limited quantities (LQ)	5L
\cdot Excepted quantities (\widetilde{EQ})	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2810 TOXIC, LIQUIDS, ORGANIC, N.O., (DICHLOROMETHANE, TETRACHLOROETHYLENE), 6.1, III

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

All ingredients are listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65
- · Chemicals known to cause cancer:

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

All ingredients are listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenic categories

· EPA (En	· EPA (Environmental Protection Agency)			
75-09-2	dichloromethane	L		
127-18-4	tetrachloroethylene	L		
· TLV (Thi	· TLV (Threshold Limit Value established by ACGIH)			
75-09-2	dichloromethane	A3		

NIOSH-Ca (National Institute for Occupational Safety and Health)

All:

All ingredients are listed.

127-18-4 tetrachloroethylene

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A3

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- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms





- · Signal word Warning
- · Hazard-determining components of labeling:

dichloromethane tetrachloroethylene

· Hazard statements

H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H317 May cause an allergic skin reaction. H351 Suspected of causing cancer.

H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness. H373 May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P280 Wear protective gloves.

P280 Wear eye protection / face protection. P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing must not be allowed out of the workplace.

P201 *Obtain special instructions before use.*

P202 Do not handle until all safety precautions have been read and understood.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. P301+P312

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P363 Wash contaminated clothing before reuse.

P308+P313 IF exposed or concerned: Get medical advice/attention. P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P314 Get medical advice/attention if you feel unwell.

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of water.

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

Store in a well-ventilated place. Keep container tightly closed. P403+P233

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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· Department issuing SDS: Environment protection department.

· Contact: Mr. Collins

· Date of preparation / last revision 11/13/2015 / -

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International

Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Carc. 2: Carcinogenicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

-US