SAFETY DATA SHEET

1. Identification

Product identifier **TS-3**

Other means of identification

Product code TS-3

Recommended use Cured ink remover

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name	Tekmar	
Address	P.O Box 4700 Santa Barbara, CA 93140 United States	
Telephone	Product Stewardship Transportation	805-965-0704 800-564-1096
Website	http://tekmarltd.com/	
E-mail	techsupport@tekmarltd.com	
Emergency phone number	Chemtrec Emergency Phone International	800-424-9300 805-965-0704 ++703 527-3887

Supplier Refer to Manufacturer

2. Hazard(s) identification

Physical hazards This mixture does not meet the classification criteria according to OSHA HazCom 2012.

Health hazards

Acute toxicity, oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 1B
Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Specific target organ toxicity, single exposure	Category 3 narcotic effects
Specific target organ toxicity, repeated exposure	Category 2

Environmental hazards Not currently regulated by OSHA, refer to Section 12 for additional information.

OSHA defined hazards This mixture does not meet the classification criteria according to OSHA HazCom 2012.

Label elements

Signal word Danger

Hazard statement Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause cancer. May cause damage to the liver and kidneys through prolonged or repeated exposure. May cause respiratory irritation. May cause drowsiness or dizziness.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapor. Wash hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/clothing and eye/face protection.

Response	IF exposed or concerned: Get medical advice/attention. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF IN EYES: 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.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	No OSHA defined hazard classes. Other hazards which do not result in classification: Burning produces obnoxious and toxic fumes. May hydrolyze very slowly in the presence of water to form acids. May cause severe irritation and corrosive damage in the mouth, throat and stomach. Ingestion of large amounts may cause nausea, vomiting, diarrhea, as well as depression of the central nervous system. Inhalation could result in pulmonary edema (fluid accumulation). Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed.
Supplemental information	Avoid contact with eyes, skin, and clothing. Keep away from extreme heat and flame. Keep away from incompatibles.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Methylene chloride	DICHLOROMETHANE	75-09-2	70 - < 90
Solvent Naphtha (petroleum), Light Aliphatic	LIGHT ALIPHATIC SOLVENT NAPHTHA	64742-89-8	5 - < 10
Tetrachloroethylene	ETHYLENE TETRACHLORIDE PERCHLOROETHYLENE Tetrachloroethene	127-18-4	5 - < 10

The exact concentrations of the above listed chemicals are being withheld as a trade secret as allowed by 29CFR1910.1200.

4. First-aid measures

Inhalation	If inhaled: Remove person to fresh air and keep comfortable for breathing. If breathing stops, provide artificial respiration. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, trained personnel should give oxygen. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Wash off with soap and plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Eye contact	IF IN EYES: 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.
Ingestion	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Do not induce vomiting. Rinse mouth. Never give anything by mouth to a victim who is unconscious or is having convulsions.
Most important symptoms/effects, acute and delayed	Harmful if swallowed. May cause severe irritation and corrosive damage in the mouth, throat and stomach. Symptoms may include severe abdominal pain, vomiting, burns and bleeding. Causes respiratory tract irritation. Symptoms may include upper respiratory irritation, coughing, and breathing difficulties. May cause central nervous system effects. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. Causes severe skin irritation. Symptoms may include redness, blistering, pain and swelling. Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause cancer. Symptoms may include pain, nausea, weight loss, yellowing of the skin, fatigue, headache, behavioral changes and various other symptoms. May cause damage to the liver and kidneys through prolonged or repeated exposure. Symptoms may include weakness, weight loss, nausea, abnormal heart rhythms and jaundice.
Indication of immediate medical attention and special treatment needed	Immediate medical attention is required. May be harmful if swallowed. Provide general supportive measures and treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Aldehydes. Hydrocarbons. Not considered flammable. May become flammable with extreme heat. Vapors are heavier than air and may spread along floors. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Toxic fumes, gases or vapours may evolve on burning.
Special protective equipment and precautions for firefighters	Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	Evacuate area. Fight fire with normal precautions from a reasonable distance.. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Not considered flammable.
Hazardous combustion products	Carbon oxides. Hydrogen chloride. Chlorine. Phosgene. Aldehydes. Hydrocarbons. Other irritating fumes and smoke.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Large and small spills may have a broad definition depending on the user's handling system. Therefore, the spill category must be defined at the point of release by technically qualified personnel. Restrict access to area until completion of clean-up. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Ventilate the area. Remove sources of ignition. Stop leak if you can do so without risk. Small Spills: Move the leaking container to a containment area or rotate the container so that the opening is above the liquid level. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand). Pick up and transfer to properly labelled containers. Large Spills: Close or cap valves and/or block or plug hole in leaking container and transfer to another container. Contain material as described above and call the local fire or police department for immediate emergency assistance. Never return spills to original containers for re-use. Contaminated absorbent material may pose the same hazards as the spilled product. For waste disposal, see section 13 of the SDS. Contact the proper local authorities.
Environmental precautions	Avoid release to the environment. Avoid discharge into drains, water courses or onto the ground. Construct temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of the material. Contact local authorities in case of spillage to drain/aquatic environment.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. To avoid uncontrolled emissions, vent vapor from container to storage tank. Consider process enclosure. Use only outdoors or in a well-ventilated area. Wear suitable protective equipment. Wear protective gloves/clothing and eye/face protection. See Section 8 of the SDS for Personal Protective Equipment. Vapors of this product are heavier than air and will collect in low areas such as pits, degreasers, storage tanks, and other confined areas. Do not enter these areas where vapors of this product are suspected unless special breathing apparatus is used and an observer is present for assistance. Do not breathe vapor. Avoid contact with eyes, skin, and clothing. When using, do not eat, drink or smoke. Keep away from extreme heat and direct flame. Keep away from incompatibles. Keep containers closed when not in use. Wash hands thoroughly after handling. Empty containers retain residue and can be dangerous. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Significant vapor pressures (> 5 psi) can be generated above 29C (85F). This may result in venting or rupture. Do not store in zinc, aluminum, aluminum alloys or plastics. Store away from incompatible materials (see Section 10 of the SDS). Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
Methylene chloride (CAS 75-09-2)	STEL	125 ppm
	TWA	25 ppm

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Tetrachloroethylene (CAS 127-18-4)	Ceiling	200 ppm
	TWA	100 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Methylene chloride (CAS 75-09-2)	TWA	50 ppm
Tetrachloroethylene (CAS 127-18-4)	STEL	100 ppm
	TWA	25 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Methylene chloride (CAS 75-09-2)	0.3 mg/l	Dichloromethane	Urine	*
Tetrachloroethylene (CAS 127-18-4)	0.5 mg/l	Tetrachloroethylene	Blood	*
	3 ppm	Tetrachloroethylene	End-exhaled air	*

* - For sampling details, please see the source document.

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye/face protection. Wear safety glasses with side shields (or goggles). A full face shield may also be necessary.
Eye wash fountain is recommended.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Wear as appropriate: Polyvinyl alcohol (PVA). Responder. Silver Shield/4H(TM) (polyethylene/ethylene vinyl alcohol). Advice should be sought from glove suppliers.

Other

Wear suitable protective clothing. Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact.
Eye wash facilities and emergency shower must be available when handling this product.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection. Advice should be sought from respiratory protection specialists.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Do not breathe vapor. Avoid contact with eyes, skin and clothing. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Transparent liquid.
Color	Colorless.
Odor	Irritating.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	> -58 °F (> -50 °C)
Initial boiling point and boiling range	105 - 305 °F (40.56 - 151.67 °C)
Flash point	> 212.0 °F (> 100.0 °C) Tag Closed Cup
Evaporation rate	10 (N-butyl acetate = 1)
Flammability (solid, gas)	Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	14 % @ 25ºC
Flammability limit - upper (%)	22 % @ 25ºC
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	205.57 mm Hg
Vapor density	3.12
Relative density	Not available.

Solubility(ies)

Solubility (water)	< 0.1 % (Negligible)
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

Other information

Explosive properties	Not explosive.
Oxidizing properties	None known.
Specific gravity	1.26

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport. May hydrolyze very slowly in the presence of water to form acids.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur.
Conditions to avoid	Do not use in areas without adequate ventilation. Avoid high temperatures. Avoid contact with incompatible materials. Protect from moisture.
Incompatible materials	Strong acids. Strong bases. Strong oxidizing agents. Amines. Reactive metals.
Hazardous decomposition products	None known, refer to hazardous combustion products in Section 5.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Harmful if swallowed. May cause irritation of the gastrointestinal tract.
Inhalation	May cause irritation to the respiratory system. May cause central nervous system effects.

Skin contact	Causes severe skin irritation.
Eye contact	May cause moderate eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Harmful if swallowed. May cause severe irritation and corrosive damage in the mouth, throat and stomach. Symptoms may include severe abdominal pain, vomiting, burns and bleeding. Causes respiratory tract irritation. Symptoms may include upper respiratory irritation, coughing, and breathing difficulties. May cause central nervous system effects. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. Causes severe skin irritation. Symptoms may include redness, blistering, pain and swelling. Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause cancer. Symptoms may include pain, nausea, weight loss, yellowing of the skin, fatigue, headache, behavioral changes and various other symptoms. May cause damage to the liver and kidneys through prolonged or repeated exposure. Symptoms may include weakness, weight loss, nausea, abnormal heart rhythms and jaundice.

Information on toxicological effects

Acute toxicity Harmful if swallowed. The below product data is the calculated ATE values for this mixture. Individual ingredient component data appears below the product mixture ATE values.

Product	**Species**	**Test Results**
TS-3 (CAS Mixture)		
Acute		
Dermal		
LD50	Rabbit	> 2232 mg/kg
Inhalation		
LC50	Rat	58.1 mg/l, 4 hours (Vapor)
Oral		
LD50	Rat	1468 mg/kg
Components	**Species**	**Test Results**
Methylene chloride (CAS 75-09-2)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	22170 ppm, 4 hours (Vapor)
		77.01 mg/l, 4 hours (Vapor)
Oral		
LD50	Rat	> 2000 mg/kg (averaged male/female value)
		2280 mg/kg (male)
		1400 mg/kg (female)
Solvent Naphtha (petroleum), Light Aliphatic (CAS 64742-89-8)		
Acute		
Dermal		
LD50	Rabbit	> 4000 mg/kg
Inhalation		
LC50	Rat	> 23 mg/l, 4 hours (vapor)
Oral		
LD50	Rat	> 8000 mg/kg
Tetrachloroethylene (CAS 127-18-4)		
Acute		
Dermal		
LD50	Rabbit	> 3245 mg/kg
Inhalation		
LC50	Mouse	2613 ppm, 4 Hours (Vapor)
		17.7 mg/l, 4 Hours (Vapor)

Components	Species	Test Results
	Rat	3786 ppm, 4 hours (Vapor)
		25.7 mg/l, 4 hours (Vapor)
Oral		
LD50	Rat	2600 mg/kg

Skin corrosion/irritation Hazardous by OSHA criteria. Classification:
Skin corrosion/irritiation - Category 2. Causes skin irritation.

Serious eye damage/eye irritation Hazardous by OSHA criteria. Classification:
Eye damage/irritation - Category 2A. Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not expected to be a respiratory sensitizer.

Skin sensitization Not expected to be hazardous by OSHA criteria. Not expected to be a skin sensitizer.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Hazardous by OSHA criteria. Classification:
Carcinogenicity - Category 1B. May cause cancer. Contains: Methylene chloride. Tetrachloroethylene. See below for ingredients present on regulatory lists.

IARC Monographs. Overall Evaluation of Carcinogenicity

Methylene chloride (CAS 75-09-2)	2B Possibly carcinogenic to humans.
Tetrachloroethylene (CAS 127-18-4)	2A Probably carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Methylene chloride (CAS 75-09-2)	Cancer

US. National Toxicology Program (NTP) Report on Carcinogens

Methylene chloride (CAS 75-09-2)	Reasonably Anticipated to be a Human Carcinogen.
Tetrachloroethylene (CAS 127-18-4)	Reasonably Anticipated to be a Human Carcinogen.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Hazardous by OSHA criteria. Classification:
Specific Target Organ Toxicity (STOT), Single Exposure; Category 3. May cause respiratory irritation. May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure Hazardous by OSHA criteria. Classification:
Specific Target Organ Toxicity (STOT), Repeated Exposure; Category 2. May cause damage to the liver and kidneys through prolonged or repeated exposure. Contains: Methylene chloride. Tetrachloroethylene.

Chronic effects Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. Prolonged exposure may cause chronic effects. Kidney injury may occur. Liver injury may occur.

Aspiration toxicity Not expected to be hazardous by OSHA criteria.

12. Ecological information

Ecotoxicity No data is available on the product itself. The product should not be allowed to enter drains, water courses or the soil. Components of this product are hazardous to aquatic life. See below for individual ingredient ecotoxicity data.

Components		Species	Test Results
Methylene chloride (CAS 75-09-2)			
Aquatic			
Acute			
Algae	EC50	Green algae (Selenastrum capricornutum)	662 mg/l
Crustacea	EC50	Water flea (Daphnia magna)	27 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	193 mg/l, 96 hours
Chronic			
Algae	NOEC	Green algae (Selenastrum capricornutum)	56 mg/l, 96 hours
Crustacea	NOEC	Water flea (Daphnia magna)	6.2 - 13.3 mg/l, 21 days
Fish	NOEC	Fathead minnow (Pimephales promelas)	83 mg/l, 28 days

Components		Species	Test Results
Solvent Naphtha (petroleum), Light Aliphatic (CAS 64742-89-8)			
Aquatic			
Acute			
Algae	EC50	Green algae (Selenastrum capricornutum)	45 mg/l, 96 hours
Crustacea	EC50	Water flea (Daphnia magna)	32 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	8.2 mg/l, 96 hours
Chronic			
Algae	NOEC	Green algae (Selenastrum capricornutum)	18 mg/l, 96 hours
Crustacea	NOEC	Water flea (Daphnia magna)	2.6 mg/l, 21 days
Tetrachloroethylene (CAS 127-18-4)			
Aquatic			
Acute			
Algae	EC50	Algae	3.64 mg/l, 72 hours
Crustacea	EC50	Water flea (Daphnia magna)	8.5 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	5 mg/l, 96 hours
Chronic			
Crustacea	NOEC	Water flea (Daphnia magna)	0.51 mg/l, 28 days

Persistence and degradability No data is available on the degradability of this product.
Contains the following chemicals which are considered to be readily biodegradable: Solvent naphtha (petroleum), light aliphatic.
Contains the following chemicals which are not considered to be readily biodegradable: Methylene chloride. Tetrachloroethylene.

Bioaccumulative potential The product itself has not been tested. See the following data for ingredient information.

Partition coefficient n-octanol / water (log Kow)	
Methylene chloride	1.25
Solvent Naphtha (petroleum), Light Aliphatic	2.1 - 6, (Category read across)
Tetrachloroethylene	3.4
Bioconcentration factor (BCF)	
Methylene chloride	6.4 - 40
Solvent Naphtha (petroleum), Light Aliphatic	129 - 576 (Category read across)
Tetrachloroethylene	49 Species: Bluegill (Lepomis macrochirus)

Mobility in soil The product itself has not been tested.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

US RCRA Hazardous Waste U List: Reference

Methylene chloride (CAS 75-09-2)	U080
Tetrachloroethylene (CAS 127-18-4)	U210

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN2810
UN proper shipping name	Toxic, liquids, organic, n.o.s. (Dichloromethane; Tetrachloroethylene)
Transport hazard class(es)	
Class	6.1(PGIII)
Subsidiary risk	None.
Label(s)	6.1
Packing group	III
Environmental hazards	
Marine pollutant	No
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. US CERCLA Reportable Quantity (RQ): Methylene chloride. 1000 lbs / 454 kg; Tetrachloroethylene. 100 lbs / 45.4 kg
Special provisions	IB3, T7, TP1, TP28
Packaging exceptions	153
Packaging non bulk	203
Packaging bulk	241

IATA

UN number	UN2810
UN proper shipping name	Toxic, liquids, organic, n.o.s. (Dichloromethane; Tetrachloroethylene)
Transport hazard class(es)	
Class	6.1(PGIII)
Subsidiary risk	None.
Label(s)	6.1
Packing group	III
Environmental hazards	No
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Refer to the appropriate Packing Instruction, prior to shipping this material. Review all State and Operator Variations, prior to shipping this material.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.

IMDG

UN number	UN2810
UN proper shipping name	Toxic, liquids, organic, n.o.s. (Dichloromethane; Tetrachloroethylene)
Transport hazard class(es)	
Class	6.1(PGIII)
Subsidiary risk	None.
Label(s)	6.1
Packing group	III
Environmental hazards	
Marine pollutant	No
EmS	F-A, S-A
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code This substance/mixture is not intended to be transported in bulk.

DOT

IATA; IMDG

General information This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Methylene chloride (CAS 75-09-2)	Listed.
Tetrachloroethylene (CAS 127-18-4)	Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Methylene chloride (CAS 75-09-2)	Cancer Heart Central nervous system Liver Skin irritation Eye irritation

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Methylene chloride (CAS 75-09-2)
Tetrachloroethylene (CAS 127-18-4)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Methylene chloride (CAS 75-09-2)
Tetrachloroethylene (CAS 127-18-4)

US. New Jersey Worker and Community Right-to-Know Act

Methylene chloride (CAS 75-09-2)
Tetrachloroethylene (CAS 127-18-4)

US. Pennsylvania Worker and Community Right-to-Know Law

Methylene chloride (CAS 75-09-2)
Tetrachloroethylene (CAS 127-18-4)

US. Rhode Island RTK

Methylene chloride (CAS 75-09-2)
Tetrachloroethylene (CAS 127-18-4)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Methylene chloride (CAS 75-09-2)	Listed: April 1, 1988
Tetrachloroethylene (CAS 127-18-4)	Listed: April 1, 1988

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 07-21-2014

Version # 01

List of abbreviations

ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation and Liability Act of 1980
CFR: Code of Federal Regulations
DOT: Department of Transportation
EPA: Environmental Protection Agency
EPCRA: Emergency Planning and Community Right-to-Know Act
ERG: Emergency Response Guidebook
HSDB® - Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association
IBC: Intermediate Bulk Container
IMDG: International Maritime Dangerous Goods
LC: Lethal Concentration
LD: Lethal Dose
NIOSH: National Institute of Occupational Safety and Health
NOEC: No observable effect concentration
NTP: National Toxicology Program
OECD: Organisation for Economic Co operation and Development
OEL: National occupational exposure limits
OSHA: Occupational Safety and Health Administration
PEL: Permissible exposure limit
RCRA: Resource Conservation and Recovery Act
RQ: Reportable Quantity
RTECS: Registry of Toxic Effects of Chemical Substances
SCBA: self-contained breathing apparatus
SDS: Safety Data Sheet
STEL: Short Term Exposure Limit
TWA: Time Weighted Average
UN: United Nations

References

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