

Safety Data Sheet

To comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

TITRACLOR-C CHLORINE IN USED OIL QUANTIFICATION TEST KIT

SECTION 1 – COMPANY IDENTIFICATION

Manufacturer: Dexsil Corporation
One Hamden Park Drive
Hamden, CT 06517

Emergency Telephone Number:
USA (800) 424-9300 (CHEMTREC)
INT'L (703) 741-5970

Telephone Number: (203) 288-3509

Email: info@dexsil.com

Product Description: The TITRACLOR-C product line is a laboratory test kit for determining total halogen content in used oils.

SECTION 2 – HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Ampule 1 (gray color)

Water-react. 1;H260	In contact with water releases flammable gases which may ignite spontaneously.	Skin Corr. 1B;H314	Causes severe skin burns and eye damage.
Acute Tox. 5;H313	May be harmful in contact with skin. (Not adopted by US OSHA)	Eye Dam. 1;H318	Causes serious eye damage.
Acute Tox. 4;H332	Harmful if inhaled.		

Ampule 2 (Large, colorless)

Acute Tox. 3;H331	Toxic if inhaled.	Acute Tox. 3;H331	effects. Toxic if inhaled.
Eye Irrit. 2;H319	Causes serious eye irritation.		
Carc. 2;H351	Suspected of causing cancer.		
Aquatic Chronic 2;H411	Toxic to aquatic life with long lasting		

Amber bottle No applicable GHS categories.

Ampule 3 (red-green color)

Flam. Liq. 2;H225 *Highly Flammable liquid and vapor.*

Aqueous Solution

Skin Irrit. 2;H315 Causes skin irritation. Eye Irrit. 2;H319 Causes serious eye irritation.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

Ampule 1 (gray color)



Danger

H260 In contact with water releases flammable gases which may ignite spontaneously.

H313 May be harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

[Prevention]:

P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P231+232 Handle under inert gas. Protect from moisture.

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

P262 Do not get in eyes, on skin, or on clothing.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P310 Immediately call a POISON CENTER or doctor / physician.

P331 Do NOT induce vomiting.

P335+334 Brush off loose particles from skin. Immerse in cool water / wrap in wet bandages.

P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P363 Wash contaminated clothing before reuse.

P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

[Storage]:

P402+404 Store in a dry place. Store in a closed container.

P405 Store locked up.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

Ampule 2 (blue-dot)



Danger

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H351 Suspected of causing cancer.

H411 Toxic to aquatic life with long lasting effects.

[Prevention]:

P201 Obtain special instructions before use.

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

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P308+313 IF exposed or concerned: Get medical advice / attention.

P311 Call a POISON CENTER or doctor / physician.

P321 Specific treatment (see information on this label).

P337+313 If eye irritation persists: Get medical advice / attention.

P391 Collect spillage.

[Storage]:

P403+233 Store in a well ventilated place. Keep container tightly closed.

P405 Store locked up.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

Amber bottle: No applicable GHS categories.

Ampule 3 (red-green color)



Danger

H225 Highly flammable liquid and vapor.

[Prevention]:

P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.

P241 Use explosion-proof electrical / ventilating / light / equipment.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

[Storage]:

P403+233 Store in a well ventilated place. Keep container tightly closed.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

Aqueous Solution



Danger

H315 Causes skin irritation.

H318 Causes serious eye damage.

[Prevention]:

P264 Wash thoroughly after handling.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P310 Immediately call a POISON CENTER or doctor / physician.

P321 Specific treatment (see information on this label).

P362 Take off contaminated clothing and wash before reuse.

[Storage]:

No GHS storage statements

[Disposal]:

No GHS disposal statements

SECTION 3 – COMPOSITION / INFORMATION INGREDIENTS

Component	Contents	CAS#	EC#	GHS Classification	% liquid
Ampule 1 (gray color)	Sodium	7440-23-5	231-132-9	Asp. Tox. 1;H304 Acute Tox. 4;H332 Skin Irrit. 2;H315	0.27%
	dispersed in oil	64742-46-7	265-148-2	Water-react. 1;H260 Skin Corr. 1B;H314	1.10%
Ampule 2 (large, colorless)	Naphthalene in	91-20-3	202-049-5	Eye Irrit. 2;H319	0.46%
	Ethyl Diglyme Solution	112-36-7	203-963-7	Carc. 2;H351 Acute Tox. 4;H302 Aquatic Acute 1;H400 Aquatic Chronic 1;H410	4.69%
Amber bottle	Mercuric Nitrate	10045-94-0	233-152-3	Acute Tox. 2;H300 - Acute Tox. 1;H310 - Acute Tox. 2;H330 - STOT RE 2;H373 - Aquatic Acute 1;H400 - Aquatic Chronic 1;H410	0.38%
	in water	7732-18-5	231-791-2		68.30%
Ampule 3 (red-green color)	Ethanol	64-17-5	200-578-6	Flam. Liq. 2;H225	0.69%
Aqueous Solution	Sulfuric Acid	7664-93-9	231-639-5	Skin Corr. 1A;H314	0.70%
	in water	7732-18-5	231-791-2	---	23.41%
					100.00%

SECTION 4 – FIRST AID MEASURES

First Aid: In case of contact with reagents, rinse well with water.

Eye Contact: For all kit components, flush eyes with large amounts of water for 15 minutes. Seek medical attention.

Skin contact: Flush with large amounts of water. Use soap and water to wash away organic components.

Inhalation: In case of inhalation, remove to fresh air.

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 a collar, tie, belt or waistband. Get medical attention immediately.

SECTION 5 — FIRE AND EXPLOSION HAZARD

Flash Point	Ampule 1	143.6°F	62.0°C
	Ampule 2	162°F	72.2°C
	Ampule 3	48°F	8.89°C
	Amber bottle	N/A	N/A
	Aqueous Sol'n	N/A	N/A

Flammable Limit Unknown

Extinguishing Media DO NOT USE WATER ON A SODIUM FIRE. Dry chemical, foam, CO₂

Special Fire Fighting Procedures Do not use water. Wear SCBA. Avoid breathing sodium oxide fumes that will form on combustion.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal Protection Chemical safety glasses and rubber gloves

Spills and Leaks *Ampule 1 - Sodium Ampule*
Cover with dry soda ash or salt. Store in a well-ventilated area away from moisture

Ampule 2 - Naphthalene/Ethyl Diglyme Ampule
Absorb completely and dispose of as organic waste.

Ampule 3 - Ethanol Ampule
Solvent absorbent recommended for spills. Flush area with water.

Amber Bottle - Mercuric Nitrate Solution
Absorb completely and flush area with water.

Aqueous Solution
Absorb completely and flush area with water.

SECTION 7 — HANDLING AND STORAGE

Protective equipment Wear appropriate safety equipment when performing the test on site.

Storage Store test kits in a cool, dry place. Check expiration date prior to performing test.

SECTION 8 — EXPOSURE CONTROLS/ PERSONAL PROTECTIVE EQUIPMENT

Engineering Controls None required

Personal Protective Equipment(PPE)

Respiratory protection None required during normal use.

Ventilation Perform test only in a well-ventilated area.

Hand Protection Always wear rubber gloves when performing the TITRACLOR-C test.

Eye protection Wear safety glasses.

General Hygiene Measures Avoid contact with skin, eyes and clothing. Wash hands after running tests.

SECTION 9 – PHYSICAL/CHEMICAL CHARACTERISTICS

Property	<u>Ampule 1</u>	<u>Ampule 2</u>	<u>Ampule 3</u>	<u>Amber Bottle</u>	<u>Aq. Sol'n</u>
Boiling Pt. °C	N/A	185	78	100	>100
Vapor Pressure mm Hg@ 21°C	N/A	0.5	44	18	16
Solubility in Water	reacts	91%	miscible	complete	complete
Specific Gravity	0.86	0.91	0.79	1.02	1.09
Percent Volatile	40	100	99	none	none
Evaporation Rate Butyl Acetate=1	N/A	0.04	2.7	N/A	N/A
Appearance	gray	colorless	red-green	colorless	colorless
Odor	none	ether-like	pleasant	none	none

N/A = not available

SECTION 10 – REACTIVITY DATA

Chemical Stability All components are stable under recommended storage conditions.

Conditions to Avoid Do not expose broken sodium ampule to moisture. Keep from strong oxidizers.

Hazardous Decomposition Products Sodium will form hydrogen and sodium oxide when moisture is present. Ethyl diglyme may form peroxides on exposure to air. Other solutions are stable.

Hazardous Polymerization Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Carcinogenicity

NTP: Yes IARC: Yes Z List: No OSHA Reg: No

This product contains Cadmium, which is listed as a NTP anticipated human carcinogen and an IARC probable human carcinogen (Groups 2A and 2B). Ethyl diglyme may cause teratogenic or mutagenic effects and cause harm to the unborn child.

Toxicity Data

<u>COMPONENT</u>	<u>CONTENTS</u>	<u>TLV / (PEL)</u>
Ampule 1(gray color, yellow-dot)	[Sodium] dispersed in oil	[2 mg/m ³ / (2 mg/m ³)]
Ampule 2 (large, colorless)	[Naphthalene] in Ethyl Diglyme Sol'n	[50 mg/m ³ / (50 mg/m ³) 33 mg/m ³ / (33 mg/m ³)
Ampule 3(red-green color)	Ethanol	1900 mg/m ³ / (1900 mg/m ³)
Amber Bottle	[Mercuric] Nitrate in water	[0.1 mg/m ³ / (0.1 mg/m ³)]
Aqueous Sol'n	[Sulfuric Acid] in water <0.05% Cadmium	[1 mg/m ³ / (1 mg/m ³) 0.05 mg/m ³ / (0.2 mg/m ³)

SECTION 12 — ECOLOGICAL INFORMATION

Naphthalene: Ecotoxicity in water (LC50): 305.2 ppm 96 hour(s) [Trout].

Ethanol: Ecotoxicity: Fish: Rainbow trout: LC50 = 12900-15300 mg/L; 96 Hr; Flow-through @ 24-24.3°C Fish: Rainbow trout: LC50 = 11200 mg/L; 24 Hr; Fingerling (Unspecified) Bacteria: *Phytobacterium phosphoreum*: EC50 = 34900 mg/L; 5-30 min; Microtox test When spilled on land it is apt to volatilize, biodegrade, and leach into the ground water, but no data on the rates of these processes could be found. Its fate in ground water is unknown. When released into water it will volatilize and probably biodegrade. It would not be expected to adsorb to sediment or bioconcentrate in fish.

Mercuric Nitrate: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 13 — DISPOSAL CONSIDERATIONS

Sampling Syringe: Dispose of in accordance with all applicable federal, state and local environmental regulations.

Test Tube 1: Contains reacted oil sample and organic liquid. Dispose of as an organic waste in accordance with all applicable federal, state and local environmental regulations.

Contents of Beaker: Upon completion of test, dispose of waste materials as a RCRA hazardous waste as per 40 CFR 265.316, and in accordance with any applicable federal, state and local environmental regulations.

SECTION 14 — TRANSPORTATION INFORMATION

DOT		
Proper Shipping Name:	None	
Domestic Highway or Rail Transport Only:	As originally packaged by Dexsil Corporation, under Competent Authority Approval CA-1996100010, packages are approved for transportation by domestic highway or rail transport only. Packaging conforms to conditions and limitations specified in 49 CFR 173.4.	
IATA		
Proper Shipping Name:	Alkali Metal Dispersion	Ethanol
UN Number:	1391	1170
Hazard Class:	4.3	3
Packing Group	I	II

SECTION 15 — REGULATORY INFORMATION

United States Regulatory Information

SARA Listed: Mercuric nitrate, cadmium, naphthalene, Organo-sulfur cmpd. and ethanol/methanol are identified on SARA Sec. 313.

TSCA Inventory Items: Mercuric nitrate, cadmium, naphthalene, and ethanol/methanol.

CERCLA Listed: Mercuric nitrate, cadmium, naphthalene, and ethanol/ methanol.

EINECS: Components of this product are on the European Inventory of Existing Commercial Chemical Substances.

SECTION 16 — OTHER INFORMATION

The full text of the phrases appearing in section 3 is:

H225 Highly flammable liquid and vapor.

H226 Flammable liquid and vapor.

H260 In contact with water releases flammable gases which may ignite spontaneously.

H300 Fatal if swallowed.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.
H310 Fatal in contact with skin.
H314 Causes severe skin burns and eye damage.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H330 Fatal if inhaled.
H332 Harmful if inhaled.
H351 Suspected of causing cancer.
H360FD May damage fertility. Suspected of damaging the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.-
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

The information in this Material Safety Data Sheet meets the requirements of the United States OCCUPATIONAL SAFETY AND HEALTH ACT and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and the Canadian WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. This document is intended only as a guide to the appropriate precautionary handling of the material by a person trained in, or supervised by a person trained in, chemical handling. The user is responsible for determining the precautions and danger of these chemicals for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. These chemicals may interact with other substances. Since the potential uses are so varied, Dexsil cannot warn of all of the potential dangers of use or interaction with other chemicals or materials. Dexsil warrants that the chemicals meet the specifications set forth on the label.

DEXSIL DISCLAIMS ANY OTHER WARRANTIES; EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, IT'S MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR PURPOSE.

The user should recognize that this product can cause severe injury and even death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Dexsil will periodically revise this Material Safety Data Sheet.

CHEMTREC emergency telephone number is to be used ONLY in the event of CHEMICAL EMERGENCIES involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to the Customer Service Dept. at 1-203-288-3509.

For additional information, contact Dexsil.

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