Safety Data Sheet

Cross Oil Refining & Marketing, Inc.
484 East 6th Street
Smackover, AR 71762
USA

Emergency: **ChemTrec 800-424-9300**
Information: 870-881-8700
Fax: 870-864-8656
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ARTICLE 1 PRODUCT AND COMPANY IDENTIFICATION

Product: Cross L Series

General Uses: Process oil, Chemical carrier, Lubricant

Product Description: Amber liquid, Hydrocarbon odor

REACH Registration CAS No. 265-156-6 **Pre-registration** 02-2118612511-56-0000
CAS No. 265-155-0 **Registration** 01-2119467170-45-0030

ARTICLE 2 IDENTIFICACIÓN DE PELIGROS

	NFPA 704	NPCA-HMIS	KEY
HEALTH:	1	1	0 = Minimal
FIRE:	1	1	1 = Slight
REACTIVITY:	0	0	2 = Moderate
SPECIFIC HAZARD:	NONE	N/A	3 = Serious
PROTECTION INDEX:	N/A	B	4 = Severe

Precautionary Labels: NONE REQUIRED

WARNING:
- Clear; light amber to dark liquid.
- Mild hydrocarbon odor.
- Can burn in a fire.

INHALATION: Will not produce vapors unless heated to temperatures of ~300 ºF.

EYE CONTACT: Irritating, but will not permanently injure eye tissue.

SKIN CONTACT: Prolonged or repeated contact may cause skin irritation.

INGESTION: Small amounts (tablespoonful) swallowed are not likely to cause injury. Larger amounts may cause nausea and vomiting.

CHRONIC (CANCER) INFORMATION: IARC Monographs state that when laboratory animals are exposed to severely hydro-treated oils, such as these product(s). There is **insufficient evidence** for cancer. Thus, these oils are **Unlabeled** in accordance with 29 CFR 1910.1200. Consult a physician promptly.

ARTICLE 3 COMPOSITION / INFORMATION ON INGREDIENTS

COMMON NAME: Naphthenic oil

CHEMICAL FAMILY: Petroleum hydrocarbon

HAZARDOUS INGREDIENTS: None known

INGREDIENTS	CAS #	EU No.	% Vol.	ACGIH TLV	OSHA PELS	NIOSH STEL	Hazard Class *	Risk Phrase *

Naphthenic Oil Grades 40 - 60	64742-53-6	265-156-6	100	5 mg/m^3 oil mist	5 mg/m^3 oil mist	5 mg/m^3 oil mist	N/A	N/A
Naphthenic Oil Grades 100 - 5000	64742-52-5	265-155-0	100	5 mg/m^3 oil mist	5 mg/m^3 oil mist	5 mg/m^3 oil mist	N/A	N/A

* Hazard Class & Risk Phrase: These columns are only completed for ingredients which are classified as hazardous under EU Directive (67/548/EEC, as amended) and are present in sufficient concentration to make the overall substance hazardous. In all situations, the column will be completed as "Not Applicable".

ARTICLE 4 FIRST AID MEASURES

EYE CONTACT: Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation persists.

SKIN: Wash skin with plenty of soap and water for several minutes. Get medical attention of skin irritation develops or persists.

INGESTION: If more than several mouthfuls have been swallowed, give two glasses of water (16 Oz.). **Get medical attention.**

INHALATION: If irritation. Headache, nausea or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or symptoms persist.

ARTICLE 5 FIRE FIGHTING MEASURES

Flash Point: ºC (Method) See Section 9

Ignition Temp.: ºC Not determined

Flammability Limit (%) Not determined

RECOMMENDED FIRE EXTINGUISHING AGENTS AND SPECIAL PROCEDURES

- According to NFPA Guide; use water spray, dry chemical, foam or carbon dioxide. Water or foam may cause frothing.
- Use water to cool fire exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for persons attempting to stop the leak.

UNUSUAL OR EXPLOSIVE HAZARDS: None

ARTICLE 6 ACCIDENTAL RELEASE MEASURES

- Notify the appropriate authorities immediately.
- Contain spill. If possible.
- Avoid breathing vapor.
- Use self- contained breathing apparatus or supplied air for large spills or in confined areas.
- Wipe up or use suitable absorbent material and shovel into appropriate container for disposal.
- Prevent entry into sewers or waterways.
- Avoid contact with skin, eyes or clothing.

ARTICLE 7 HANDLING AND STORAGE

PRECAUTIONS:

- Minimum feasible handling temperatures should be maintained.
- Periods of exposure to high temperature should be minimized.
- Water contamination should be avoided.

ARTICLE 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

PROTECTIVE EQUIPMENT EYE / FACE PROTECTION: Chemical-type goggles or face shield recommended to prevent eye exposure.

SKIN PROTECTION: Workers should wash exposed skin several times daily with soap and water. Soiled clothing should be laundered or dry-cleaned at least weekly.

RESPIRATORY PROTECTION: Airborne concentrations should be kept to lowest levels. If vapor is generated, use respirator approved by OSHA or NIOSH as appropriate. Supplied air respiratory protection should be used for cleaning large spills or upon entry into tanks, vessels, or other confined spaces. See Exposure Limit below.

VENTILATION: Must be adequate to meet exposure limits below.

EXPOSURE LIMIT (TOTAL PRODUCT) 5 mg/m3 for mineral oil mist over an 8 hour daily exposure (ACGIH).

ARTICLE 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Bright, clear liquid, mineral odor

FREEZING POINT: Not applicable

% VOLATILES: Essentially zero@ 24 ºC

VAPOR DENSITY (Air =1): 1+

pH: Not available

SOLUBILITY IN WATER: Insoluble

PHYSICAL PROPERTIES:

GRADE	VISCOSITY. cSt @ 40ºC	FLASH. ºC (COC)	SPECIFIC GRAVITY	VOC. % Wt. ASTM D-972	Vapor Pressure torr @ 24 °C	BOILING POINT. °C
L-40	4.70	124	0.8888	46.0	14 X 10-3	249
L-50	7.74	135	0.8994	32.0	< 14 X 10-3	260
L-60	9.89	154	0.9007	15.0	7 X 10-3	316
L-100	19.64	163	0.9076	8.0	< 7 X 10-3	327
L-150	29.64	172	0.9123	6.1	< 7 X 10-3	360
L-200	41.80	181	0.9141	5.0	< 6.4 X 10-3	368
L-240	45.72	180	0.9194	4.2	< 6.0X 10-3	370
L-G46	47.00	180	0.9190	4.2	< 5.3 X 10-3	374
L-GSO	59.85	192	0.9212	3.0	< 5.3 X 10-3	377
L-300	59.85	188	0.9212	3.0	< 0.0001	374
L-400	77.60	204	0.9242	2.4	< 0.0001	Not available
L-500	97.80	200	0.9254	1.8	< 0.0001	388
L-630	123.90	204	0.9273	1.4	< 0.0001	399
L-750	143.47	215	0.9279	1.0	< 0.0001	404
L-800	156.90	218	0.9290	1.2	< 0.0001	407
L-1200	234.90	235	0.9239	0.4	< 0.0001	416
L-1500	295.00	238	0.9273	0.3	< 0.0001	421
L-2000	369.33	246	0.9279	0.3	< 0.0001	427
L-2400	441.70	248	0.9279	0.3	< 0.0001	432
L-2800	500.83	252	0.9379	0.2	< 0.0001	435

L-3500	604.90	258	0.9334	0.1	< 0.0001	438
L-4000	726.06	255	0.9320	0.1	< 0.0001	450
L-5000	908.00	258	0.9334	0.1	< 0.0001	457

ARTICLE 10 STABILITY AND REACTIVITY

- This material reacts violently with strong oxidizers.
- Evolves toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and keytones when heated to combustion.
- Hazardous polymerization does not occur.

ARTICLE 11 TOXICOLOGICAL INFORMATION

TOXOLOGICAL INFORMATION (ANIMAL TOXICITY DATA) INFORMATION
Median Lethal Dose (LD50 LC50) (Species)

Oral: Believed to be >5g/kg (rat); practically non-toxic

Inhalation: Not determined

Dermal: Believed to be >3 g/kg (rat); practically non-toxic.

Irritation Index: Estimation of Irritation (Species).

Skin: Believed to be <0.5/8.0 (rabbit); no appreciable effect

Eyes: Believed to be <15/110 (rabbit); no appreciable effect

Sensitization: Not available

Other: None

The International Agency for Research on Cancer (IARC), one of the Occupational Safety and Health Association's (OSHA) authorities for establishing carcinogenic potential, has specifically evaluated Naphthenic Oils. IARC found that Mildly Hydro treated (Hydro finished) Naphthenic Oils are carcinogenic to laboratory animals. **IARC has NOT found severely Hydro treated Naphthenic Oils to be carcinogenic. These products are classified as Severely (Not Mildly) Hydro treated under both IARC and OSHA definitions.**

One refiner reports that a lifetime dermal application of this type oil produced skin masses on mice, which correlated with the skin irritation response levels of individual test animals. Additional studies attribute these masses to a weak promotional activity. These studies also showed that this product is not a mutagen, not a tumor initiator, and not a complete chemical carcinogen. Under normal anticipated conditions of use, this product should not present a risk to human health.

ARTICLE 12 ECOLOGICAL INFORMATION

- If applied to leaves, this product may kill grasses and small plants by interfering with transpiration and respiration. This product is not toxic to fish but may coat gill structures resulting in suffocation if spilled in shallow, running water. Product may be moderately toxic to amphibians by preventing dermal respiration. This product may cause gastrointestinal distress in birds and mammals through ingestion.
- This product is rapidly biodegradable. Biodegradation is possible with 100 to 120 days in aerobic environments at temperatures above 70F (21C).
- A film or sheen will cause discoloration of the water surface or adjoining shoreline.

ARTICLE 13 DISPOSAL

This product has been evaluated for RCRA characteristics and *does not* meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This product is subject in service to chemical alteration, which may render the resulting material hazardous.

ARTICLE 14 TRANSPORT INFORMATION INFORMATIONS

	Bulk Shipping	Non-Bulk Shipping	Identification No.	Hazard Class
US DOT	Not required	Not required	Not required	Not required
Canadian TDG	Not required	Not required	Not required	Not required
European	Not required	Not required	Not required	Not required

ADR, IMDG, IATA-DGR Not classified as hazardous goods for land, sea and air transport.

Other: See 49 CFR for additional requirements for descriptions, allowed modes of transport, and packaging. For more information concerning spills during transport, consult latest DOT Emergency Response Guidebook for Hazardous Materials Incidents, DOT P 5800.3.

ARTICLE 15 REGULATORY INFORMATION

North America Regulatory Information

Clean Water Act/Oil Pollution Act: Under Section 311 of the Clean Water Act (40 CFR 110) and the Oil Pollution Control Act of 1990, this material is considered an oil. Any spills or discharges that produce a visible sheen or film on surface of water, or in waterways, ditches, or sewers leading to surface water must be reported. Contact the National Response Center at 800-424-8802.

TSCA: All components of this material are listed in the US TSCA Inventory.

OSHA: IARC Monographs state that when laboratory animals are exposed to severely hydro-treated oils, such as these product(s), there is **insufficient evidence** for cancer. These oils are **Unlabeled** in accordance with 29 CFR 1910.1200.

SARA TITLE III	Section 302/304: Extremely Hazardous Substance	None
	Section 313: Toxic Chemicals	None
CERCLA:	Section 102(a) Hazardous Substance – Not reportable	Not reportable quantity

CALIFORNIA PROPOSITION #65 Not listed

CANADIAN DOMESTIC SUBSTANCES LIST: All components of this material are listed.

European Regulatory Information

EUROPEAN STANDARD TEST METHOD IP-346: Pass

EUROPEON REGULATORY INFORMATION: This product is listed on the European Inventory of Existing Commercial Substances.

This product has been classified in accordance with the Dangerous Substances Directive (67/548/EEC, as amended). Implemented in the UK as the Chemical (Hazard Information and Packaging) Regulations 1994 (CHIP, as amended).

Classified as Dangerous to Supply: No

Risk Phrases: Not applicable.

Safety Phrases: Not applicable.

Symbols: None

Asian Regulatory Information

JAPAN ENCS: This product is listed on Japan's Existing and New Chemical Substances List.

CHINA: This product is listed on the China (IECSC). Inventory of Existing Chemical Substances Manufactured or Imported in China.

ARTICLE 16 OTHER INFORMATION

HAZARD RATINGS RECOMMENDED FOR CONTAINERS EVALUATION

	NFPA 704	NPCA-HMIS	KEY
HEALTH:	1	1	0 = Minimal
FIRE:	1	1	1 = Slight
REACTIVITY:	0	0	2 = Moderate
SPECIFIC HAZARD:	NONE	N/A	3 = Serious
PROTECTION INDEX:	N/A	B	4 = Severe

Precautionary Labels: NONE REQUIRED

This SDS is compiled in accordance with ANSI Z400.1 and the EU Safety Data Sheet Directive 91/155/EEC.

Advise to Physicians: High velocity injection of grease under the skin may result in serious injury. If left untreated, the affected area is subject to infection, disfigurement, lack of blood circulation and may require amputation. When dispensed by high-pressure equipment, this material can easily penetrate the skin and leave a bloodless puncture wound. Material injected into a finger can be deposited into the palm of the hand and in rare occasions up to the elbow. Within 24 to 48 hours the patient may experience swelling, discoloration, and throbbing pain in the affected area. Immediate treatment by a surgical specialist is recommended.

Glossary:

ACGIH – American Conference of Governmental Industrial Hygienists; **ANSI** – American National Standards Institute; **Canadian TDG** – Canadian Transportation of Dangerous Goods; **CAS** – Chemical Abstract Service; **Chemtrec** – Chemical Transportation Emergency Center (US); **CHIP** – Chemical Hazard Information and Packaging; **DSL** – Domestic Substances List; **EC** – Equivalent Concentration; **EH40 (UK)** – HSE Guidance Note EH40 Occupational Exposure Limits; **EPCRA** – Emergency Planning and Community Right-To-Know Act; **HMIS** – Hazardous Material Information Service; **LC** – Lethal Concentration; **LD** – Lethal Dose; **NFPA** – National Fire Protection Association; **OEL** – Occupational Exposure Limits; **OSHA** – Occupational Safety and Health Administration, US Department of Labor; **PEL** – Permissible Exposure Limit; **SARA (Title III)** – Superfund Amendments and Reauthorization Act; **SARA 313** – Superfund Amendments and Reauthorization Act, Section 313; **SCBA** – Self-Contained Breathing Apparatus; STEL – Short Term Exposure Limit; **TLV** – Threshold Limit Value; **TSCA** – Toxic Substances Control Act Public Law 94-469; **TWA** – Time Weighted Value; **US DOT** – US Department of Transportation; **WHMIS** – Workplace Hazardous Materials Information System.

ARTICLE 17 PRODUCT LABEL

WARNING

Avoid Prolonged Breathing of Mist or Spray: Average exposure to airborne mist for an 8 hour workday should not exceed 5.0 milligrams of mist per cubic meter of air.

Avoid Eye and Skin Contact:
- Wear oil-impervious protective clothing.
- If clothes become contaminated change to clean clothing after thoroughly washing exposed skin with soap and warm water.

FIRST AID

Inhalation: If overcome by fumes, remove from exposure immediately and call a physician.

Skin: Wash with warm water and soap until the exposed area is clean.

Eyes:
- Flush with water for at least fifteen (15) minutes.
- See physician if symptoms persist.

Ingestion:

- Do not induct vomiting.
- Obtain medical assistance.
- Small amounts that accidentally enter through the mouth should be rinsed out until no taste of it remains.

FIRE CONTROL Use water spray or fog, chemical foam, dry powder or carbon dioxide.

SPILL / LEAK

- Add absorbent (sand. sawdust. etc.) to the spill area.
- Contain spill.
- Advise State Environmental Protection Agency, if required.
- Put recovered material in an appropriate container and dispose of according to federal, state and local regulations.

STORAGE

- Store in original or equivalent container.
- Store at the lowest practical temperature.
- Keep container closed when not in use.
- Do not apply heat or flame to the container

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Cross Oil Refining & Marketing Company, Inc. The data on this sheet is related only to the specific material designated herein. Cross Oil Refining & Marketing Co., Inc. assumes no legal responsibility for use or reliance upon these data. NA = Not Available Not App. = Not Applicable

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File: SDS – L Series
