Safety Data Sheet

Issuing Date 06-Mar-2014 **Revision Date** 25-Aug-2014 **Version** 3

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name Sierra CI-4 Plus/SL 15W-40 Motor Oil

Other means of identification

Product Code(s) 18-9553-2, 18-9553-2R, 18-9553-3, 18-9553R, 18-9553-5, 18-9553-5R, 18-9553-6, 18-9553-7

Synonyms No information available

Recommended use of the chemical and restrictions on use

Recommended Use Engine oil, Lubricant.

Uses advised against All Other Uses

Details of the supplier of the safety data sheet

Distributor

Sierra International
1 Sierra Place
Litchfield, IL 62056
TEL: 217-324-9487

Emergency telephone number

Company Emergency Phone Number (618) 542-5431

Emergency telephone number Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1

Label elements

EMERGENCY OVERVIEW

WARNING

Hazard statements

Causes serious eye irritation
May cause an allergic skin reaction

Appearance Amber colored liquid **Physical state** viscous liquid **Odor** Mild petroleum odor

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response
Specific treatment (see supplemental first aid instruction on this label)
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
IF ON SKIN: Wash with plenty of soap and water
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Other information
• Toxic to aquatic life with long lasting effects
• Toxic to aquatic life

Unknown Aquatic Toxicty 0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Common Name Hydrocarbon Lubricating Fluid.
Chemical Family Petroleum hydrocarbon mixture.

Chemical name	CAS-No	Weight %	Trade secret
Petroleum distillates, hydrotreated heavy paraffinic	64742-54-7	76.3	*
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	84605-29-8	0.69-1.49	*
Benzenesulfonic Acid,mono-C16-24-alkyl derivs., calcium salts	70024-69-0	0.34-1.05	*
Phenol, dodecyl-, branched	121158-58-5	0.01-0.16	*
Diphenylamine	122-39-4	0.004-0.04	*
Toluene	108-88-3	0.003	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General advice No hazards which require special first aid measures.

Eye contact Flush eyes for 30 minutes with water. Get medical attention if irritation persists.

Skin contact Wash off immediately with soap and plenty of water.

Inhalation Move exposed persons to fresh air. Consult medical personnel if breathing issues occur.

Ingestion Do NOT induce vomiting. Consult a physician.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Carbon dioxide (CO_2). Dry chemical. Foam. Water can be used to keep surrounding materials cool.

Small Fires Always use personal safety equipment. Follow appropriate personal safety procedures, and extinguishing media.

Large Fires Contact emergency personnel.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical
Combustible material.

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO_2).

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal protection Avoid contact with the skin and the eyes. Eye protection or face shield should be used if material is used under conditions that increase the chances of splattering. Wash skin with soap and water if contact occurs. Launder soiled clothing. If spilled, take caution, as material can cause surfaces to become very slippery.

Other information Small spill: Remove sources of heat or ignition, provide adequate ventilation, contain leak using absorbent, inert, non-combustible material. Large Spill: Contain spill, transfer to secure containers. In the event of an uncontrolled material release, the user should determine if release is reportable under applicable laws and regulations.

For emergency responders Clean up area with absorbent material and place in closed containers for disposal.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Cover with earth, sand, or other non-combustible material followed with plastic sheets to minimize spreading or contact with rain.

Methods for cleaning up Excess liquid material can be collected using a scoop or shovel and stored for recycling or disposal. Prevent material from entering drains or waterways.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes and clothing. Eye protection or face shield should be used if material is used under conditions that increase the chances of splattering. If contact is made, wash skin with soap and water. Launder soiled clothing. Maximum handling temperature is 70 degrees C (158 F). It is recommended to pump or transfer material at ambient temperature.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep away from heat and sources of ignition. Keep containers closed when not in use. Follow first aid measures if contact occurs, and spill procedures if spill occurs. For packaged material: Store in a cool dry area. For bulk material: store in cool dry area. Always follow local, state, and federal guidlines for storage of material for amount stored.

Incompatible Products Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure guidelines This product contains the following hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Diphenylamine 122-39-4	TWA: 10 mg/m³	-	TWA: 10 mg/m³
Toluene 108-88-3	TWA: 20 ppm	TWA: 200 ppm Ceiling: 300 ppm	IDLH: 500 ppm TWA: 100 ppm TWA: 375 mg/m³ STEL: 150 ppm STEL: 560 mg/m³

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face Protection If splashes are likely to occur, wear:. Goggles. Eye/face Protection.

Skin and body protection Long sleeved clothing. Protective gloves can be worn, if material comes in contact with skin wash with soap and water.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	viscous liquid		
Appearance	Amber colored liquid	**Odor**	Mild petroleum odor
Color	amber	**Odor threshold**	No information available

Property	**Values**	**Remarks • Method**
pH	No information available	
Melting point/freezing point	No information available	
Boiling Point/Range	No information available	
Flash point	> 93.3 °C > 200 °F	Cleveland open cup (COC)
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific gravity	0.88	
Water solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature		
Decomposition temperature	No information available	
Kinematic viscosity	115-125 @40C mm2/s	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other information

Softening point	No information available
VOC Content	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under normal conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid
Excessive heat. High energy sources of ignition.

Incompatible materials
Strong oxidizing agents.

Hazardous decomposition products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information No data available

Inhalation Inhalation of vapors in high concentration may cause irritation of respiratory system.

Eye contact Contact with eyes may cause irritation.

Skin contact May cause eye/skin irritation. Repeated exposure may cause skin dryness or cracking.

Ingestion Do NOT taste or swallow.

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts 84605-29-8	= 2000 mg/kg (Rat)	> 3200 mg/kg (Rabbit)	-
Phenol, dodecyl-, branched 121158-58-5	= 2100 mg/kg (Rat)	= 5 mL/kg (Rabbit)	-
Diphenylamine 122-39-4	= 1120 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-
Toluene 108-88-3	= 2600 mg/kg (Rat)	= 12000 mg/kg (Rabbit)	= 12.5 mg/L (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Serious eye damage/eye irritation Irritating to eyes.
Sensitization May cause sensitization by skin contact.
Germ cell mutagenicity No information available.
Carcinogenicity Mineral oils are known to cause cancer because of carcinogenic components (e.g. benzene). The mineral oil in this product is highly refined and should not be considered a carcinogen. Used lubricating oil may contain hazardous components which have the potential to cause skin cancer. Continuous long-term contact with used lubricating oils has caused skin cancer in animal tests. .

Chemical name	ACGIH	IARC	NTP	OSHA
Petroleum distillates, hydrotreated heavy paraffinic 64742-54-7	-	Group 1	-	X
Toluene 108-88-3	-	Group 3	-	-

Reproductive toxicity Contains ingredients that are suspected reproductive hazards.
Developmental toxicity Contains ingredients that have suspected developmental hazards.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration hazard Not Applicable.

Numerical measures of toxicity - Product Information

Unknown Aquatic Toxicty 0% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .
ATEmix (oral) 5006 mg/kg
ATEmix (dermal) 5077 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life
Toxic to aquatic life with long lasting effects

21.007% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Crustacea
Petroleum distillates, hydrotreated heavy paraffinic 64742-54-7	-	5000: 96 h Oncorhynchus mykiss mg/L LC50	1000: 48 h Daphnia magna mg/L EC50
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts 84605-29-8	-	10 - 100: 96 h Pimephales promelas mg/L LC50 static 38: 96 h Pimephales promelas mg/L LC50 100: 96 h Pimephales promelas mg/L LC50 semi-static	0.1 - 1: 48 h Daphnia magna mg/L EC50
Phenol, dodecyl-, branched 121158-58-5	-	0.14: 96 h Oncorhynchus clarki mg/L LC50	-
Diphenylamine 122-39-4	1.5: 72 h Scenedesmus subspicatus mg/L EC50	3.47 - 4.14: 96 h Pimephales promelas mg/L LC50 flow-through	1.69 - 2.46: 48 h Daphnia magna mg/L EC50
Toluene 108-88-3	12.5: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 433: 96 h Pseudokirchneriella subcapitata mg/L EC50	11.0 - 15.0: 96 h Lepomis macrochirus mg/L LC50 static 14.1 - 17.16: 96 h Oncorhynchus mykiss mg/L LC50 static 15.22 - 19.05: 96 h Pimephales promelas mg/L LC50 flow-through 5.89 - 7.81: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 50.87 - 70.34: 96 h Poecilia reticulata mg/L LC50 static 12.6: 96 h Pimephales promelas mg/L LC50 static 28.2: 96 h Poecilia reticulata mg/L LC50 semi-static 5.8: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 54: 96 h Oryzias latipes mg/L LC50 static	5.46 - 9.83: 48 h Daphnia magna mg/L EC50 Static 11.5: 48 h Daphnia magna mg/L EC50

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Chemical name	Partition coefficient
Diphenylamine 122-39-4	3.5
Toluene 108-88-3	2.65

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Method Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Diphenylamine 122-39-4	(hazardous constituent - no waste number)	Included in waste streams: F039, K083, K104	-	-
Toluene 108-88-3	waste number U220	Included in waste streams: F005, F024, F025, F039, K015, K036, K037, K149, K151	-	-

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Toluene 108-88-3	-	-	Toxic waste waste number F025 Waste description: Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.	-

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste Status
Diphenylamine 122-39-4	Toxic
Toluene 108-88-3	Toxic; Ignitable

14. TRANSPORT INFORMATION

DOT Not regulated

IATA PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO TI OR IATA DGR

15. REGULATORY INFORMATION

International Inventories

TSCA	Does not comply
DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

Legend:

All components in this product are listed on the US Toxic Substances Control Act (TSCA) inventory of chemicals.
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical name	SARA 313 - Threshold Values %
Diphenylamine - 122-39-4	1.0
Toluene - 108-88-3	1.0

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Toluene 108-88-3	1000 lb	X	X	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Toluene 108-88-3	1 lb	-	RQ 1 lb final RQ RQ 0.454 kg final RQ

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical name	California Prop. 65
Toluene - 108-88-3	Developmental Female Reproductive

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts 84605-29-8	X	-	X
Diphenylamine 122-39-4	X	X	X
Toluene 108-88-3	X	X	X

U.S. EPA Label Information

EPA Pesticide registration number Not Applicable

16. OTHER INFORMATION

NFPA	**Health hazards** 1	**Flammability** 1	**Instability** 0	**Physical and Chemical Hazards** -
HMIS	**Health hazards** 1	**Flammability** 1	**Physical hazards** 0	**Personal protection** X

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Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS