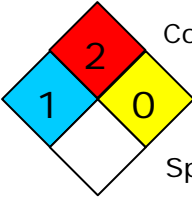


MATERIAL SAFETY DATA SHEET

IXL Premium Lubricants, Inc.



Section 1. Chemical Product and Company Identification

Product Name	IXL Complete Fuel System Cleaner	
Supplier	IXL Premium Lubricants, Inc. 1930 S. 3350 W. Roy, UT 84067 USA (801) 732-8885	
Material Uses	Aftermarket Gasoline Additive	
24 Hour Emergency Numbers:	ChemTrec (800) 424-9300 (U.S. 24 Hour)	
National Fire Protection Association (U.S.A.)	<p>Health  Combustible Reactivity Special Hazard</p>	

Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight
NJ Trade Secret 01154100-5246P	Mixture	55.0-65.0
Solvent Naphtha Light Aromatic	64742-95-6	35.0-45.0
1,2,4-trimethylbenzene	95-63-6	<5.0
Diethanolamine	111-42-2	<1.0
Xylene	1330-20-7	<0.5
Distillates, hydrotreated light	64742-47-8	<10.0
Stoddard solvent	80582-41-3	10.0

Section 3. Hazards Identification

EMERGENCY OVERVIEW

- COMBUSTIBLE LIQUID AND VAPOR
- CAUSES EYE IRRITATION
- CAUSES SKIN IRRITATION
- MAY CAUSE RESPIRATORY TRACT IRRITATION IF INHALED
- MAY CAUSE DAMAGE TO: KIDNEY
- TOXIC TO AQUATIC ORGANISMS

IMMEDIATE HEALTH EFFECTS

Eye: Contact with the eyes causes irritation. Symptoms may include pain, tearing, reddening, swelling and impaired vision. If this material is heated, thermal burns may result from eye contact.

Skin: Contact with the skin causes irritation. Skin contact may cause drying or defatting of the skin. Symptoms may include pain, itching, discoloration, swelling, and blistering. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. If this material is heated, thermal burns may result from skin contact.

Ingestion: May be irritating to mouth, throat, and stomach. Symptoms may include pain, nausea, vomiting, and diarrhea.

Inhalation: The vapor or fumes from this material may cause respiratory irritation. Symptoms of respiratory irritation may include coughing and difficulty breathing. If this material is heated, fumes may be unpleasant and produce nausea and irritation of the eye and upper respiratory tract. Breathing this material at concentrations above the recommended exposure limits may cause central nervous system effects. Central nervous system effects may include headache, dizziness, nausea, vomiting, weakness, loss of coordination, blurred vision, drowsiness, confusion, or disorientation. At extreme exposures, central nervous system effects may include respiratory depression, tremors or convulsions, loss of consciousness, coma or death.

DELAYED OR OTHER HEALTH EFFECTS:

Cancer: May cause cancer in laboratory animals, but the available information is inadequate to determine if this material can cause cancer in humans. None of the components in this material are listed as carcinogens by IARC, NTP, ACGIH or OSHA.

Target Organs: Repeated skin contact with this material may cause damage to the following organ(s) based on animal data: Kidney. See Section 11 for additional information. Risk depends on duration and level of exposure.

Section 4. First Aid Measures

Eye: Flush eyes with water immediately while holding the eyelids open. Remove contact lenses, if worn, after initial flushing, and continue flushing for at least 15 minutes. Get medical attention if irritation persists. If heated material should splash into eyes, flush eyes immediately with fresh water for 15 minutes while holding the eyelids open. Remove contact lenses, if worn. Get immediate medical attention.

Skin: Wash skin with water immediately and remove contaminated clothing and shoes. Get medical attention if any symptoms develop. To remove the material from skin, apply a waterless hand cleaner, mineral oil, or petroleum jelly. Then wash with soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse. If the hot material gets on skin, quickly cool in water. See a doctor for extensive burns. Do not try to peel the solidified material from the skin, or use solvents or thinners to dissolve it. The use of vegetable oil or mineral oil is recommended for removal of this material from the skin.

Ingestion: If swallowed, get medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Inhalation: Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue.

Section 5. Fire Fighting Measures

FIRE CLASSIFICATION: OSHA Classification (29 CFR 1910.1200): Combustible liquid.

FLAMMABLE PROPERTIES:

Flashpoint: (Pensky-Martens Closed Cup) 116°F

Autoignition: No Data Available

Flammability (Explosive) Limits (% by volume in air):

Lower: No data available Upper: No data available

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

PROTECTION OF FIRE FIGHTERS:

Fire Fighting Instructions: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion. Combustion may form oxides of: Nitrogen.

Section 6. Accidental Release Measures

Protective Measures: Eliminate all sources of ignition in the vicinity of the spill or released vapor. If this material is released into the work area, evacuate the area immediately. Monitor area with combustible gas indicator.

Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. All equipment used when handling the product must be grounded. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

Reporting: Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

Section 7. Handling and Storage

Precautionary Measures: Do not taste or swallow. Do not breathe vapor or fumes from heated material. Liquid evaporates and forms vapor (fumes) which can catch fire and burn

with explosive force. Invisible vapor spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, and electrical motors and switches. Fire hazard is greater as liquid temperature rises above 85F. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Do not breathe vapor or fumes.

General Handling Information: Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating an accumulation of electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

General Storage Information: DO NOT USE OR STORE near heat, sparks or open flames. USE AND STORE ONLY IN WELL VENTILATED AREA. Keep container closed when not in use.

Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

Section 8. Exposure Controls/Personal Protection

General Considerations:

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: Where splashing is possible or if this material is heated, wear chemical goggles or safety glasses or a face shield.

Skin Protection: Wear protective clothing to prevent skin contact. Selection of protective

clothing may include gloves, apron, boots, and complete facial protection depending on operations conducted. Suggested materials for protective gloves include: Nitrile Rubber, Silver Shield, Viton. If this material is heated, wear insulated clothing to prevent skin contact if engineering controls or work practices are not adequate to prevent skin contact.

Respiratory Protection: Determine if airborne concentrations are below the recommended exposure limits. If not, wear an approved respirator that provides adequate protection from measured concentrations of this material, such as: Air-Purifying Respirator for Organic Vapors.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

Occupational Exposure Limits:

Component	Agency	TWA	STEL	Ceiling	Notation
Diethanolamine	ACGIH	2 mg/m ³	--	--	Skin
1,2,4-Trimethylbenzene	ACGIH_TLV	25 ppm			
Xylene	ACGIH_TLV	100 ppm	150 ppm		
Xylene	OSHA_PEL	100 ppm	150 ppm		

Section 9. Physical and Chemical Properties

Appearance/Odor	Slightly Cloudy Amber Liquid with Petroleum Odor
Vapor Pressure	No data available.
Density	7.55 lb/gallon
Specific Gravity	.908 g/ml
Viscosity@40°C	9.25 cSt
Viscosity@100°C	2.48 cSt
Flashpoint	116°F (Pensky-Martens Closed Cup)

Section 10. Stability and Reactivity

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Conditions to Avoid: Open flames, sparks, temperatures above the material flash point.

Incompatibility With Other Materials: May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Hazardous Polymerization: Hazardous polymerization will not occur.

Section 11. Toxicological Information

IMMEDIATE HEALTH EFFECTS

Eye Irritation: The eye irritation hazard is based on evaluation of data for similar materials or product components.

Skin Irritation: The skin irritation hazard is based on evaluation of data for similar materials or product components.

Skin Sensitization: The skin sensitization hazard is based on evaluation of data for similar

materials or product components.

Acute Dermal Toxicity: The acute dermal toxicity hazard is based on evaluation of data for similar materials or product components.

Acute Oral Toxicity: The acute oral toxicity hazard is based on evaluation of data for similar materials or product components.

Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components.

ADDITIONAL TOXICOLOGY INFORMATION:

This product contains alkanolamine fatty acid ester.

SUBCHRONIC STUDIES: Rats and mice of both sexes were treated with this chemical in ethanol by dermal application at concentrations of 0 - 400 (rat) or 0 - 800 (mouse) mg/kg, 5 times a week for 14 weeks. Survival was not affected by treatment. Histopathologic lesions at the site of application including chronic active inflammation and ulcer were seen in rats at doses above 100 mg/kg and in mice at 800 mg/kg. In rats, decreased circulating cholesterol was seen at 100 mg/kg in females and 200 mg/kg in males. Triglycerides were decreased in males at 200 mg/kg. Also in female rats, renal tubule regeneration was significantly increased at all doses. The severity of effect increased with dose.

CHRONIC STUDIES: In National Toxicology Program (NTP) studies, rats and mice of both sexes received dermal applications of 0, 50, or 100 mg (rats) or 0, 100, or 200 mg/kg (mice) of this chemical condensate containing about 18% unreacted diethanolamine (DEA) in ethanol five times a week for 104 weeks. NTP concluded there was no evidence in male rats and equivocal evidence of carcinogenicity in female rats based on a marginal increase in renal tubule neoplasms. NTP also concluded there was clear evidence of carcinogenicity in male mice based on increased hepatic and renal tubule neoplasms and in female mice based on increased hepatic neoplasms.

In a separate 2 year bioassay, DEA was shown to be carcinogenic to mice but not to rats. Findings were similar to those reported for this chemical. This suggests the carcinogenicity of this chemical is due to DEA. Mechanisms of DEA carcinogenicity are under investigation. DEA is not genotoxic but appears to interfere with normal phospholipid metabolism. Current hypotheses suggest the carcinogenicity of DEA is tied to this interference. Because phospholipid metabolism varies widely between species, the relevance of these findings to humans is not known.

COMPONENT: Light Aromatic Solvent Naphtha (CAS 64742-95-6, also described as High-Flash Aromatic Naphtha, Type I as defined by ASTM D-3734). **GENETIC TOXICITY:** No evidence of genetic toxicity was observed in the following tests: Salmonella typhimurium reverse mutation assay (Ames test), in vitro Chinese Hamster Ovary (CHO) cell HGPRT mutation assay, in vitro Chinese Hamster Ovary(CHO) cell chromosomal aberration assay, in vitro Chinese Hamster Ovary (CHO) cell sister chromatid exchange assay, and in vivo rat bone marrow chromosome aberration assay. **SUBCHRONIC TOXICITY:** In a 13-week rat inhalation study using dose levels of 0, 100, 500, and 1500 ppm for 6 hours/day, 5days/week, no target organ toxicity including neurotoxicity was observed at any dose level. Slight general systemic toxicity (decreased body weight gain) was observed at 1500 ppm. **DEVELOPMENTAL TOXICITY:** In a mouse inhalation study using dose levels of 0, 100, 500, and 1500 ppm for 6 hours/day on gestation days 6-15, no signs of maternal toxicity or developmental toxicity were observed at 100 ppm. At 500 ppm, maternal toxicity (decreased body weight gain) and developmental toxicity (decreased fetalbody weight) were observed. Severe maternal toxicity (44% mortality, decreased body weight gain, clinical signs of toxicity) and developmental toxicity (decreased number of live fetuses per litter, increased postimplantation losses per dam, decreased fetal body weights, delayed ossification, cleft palate) were observed at 1500 ppm. In a rat inhalation study using dose

levels of 600, 1000, and 2000 mg/m³ for 24 hours/day on gestation days 7-15, signs of maternal toxicity (decreased body weight gain) were observed at all dose levels. At 600 mg/m³, no signs of fetal or developmental toxicity were observed. Signs of fetal toxicity (decreased male fetal body weight) and developmental toxicity (delayed ossification) were observed at 1000 and 2000 mg/m³. REPRODUCTIVE TOXICITY: In a rat 3-generation inhalation study using dose levels of 0, 100, 500, and 1500 ppm 6 hours/day, 5 days/week, no signs of general systemic or reproductive toxicity were observed at 100 ppm. At 500 ppm, slight parental toxicity (decreased body weight gain) and postnatal toxicity (decreased pup body weight) were observed, but reproductive parameters were not affected. Severe parental toxicity (mortality, decreased bodyweight gain, clinical signs of toxicity) and postnatal toxicity (decreased pup body weight) were observed at 1500 ppm, but reproductive parameters were not affected.

This product contains xylene.

ACUTE TOXICITY: The primary effects of exposure to xylene in animals and humans are on the central nervous system. In addition, in some individuals, xylene exposure can sensitize cardiac tissue to epinephrine which may precipitate fatal ventricular fibrillation.

DEVELOPMENTAL TOXICITY: Xylene has been reported to cause developmental toxicity in rats and mice exposed by inhalation during pregnancy. The effects noted consisted of delayed development and minor skeletal variations. In addition, when pregnant mice were exposed by ingestion to a level that killed nearly one-third of the test group, lethality (resorptions) and malformations (primarily cleft palate) occurred. Since xylene can cross the placenta, it may be appropriate to prevent exposure during pregnancy.

GENETIC TOXICITY/CARCINOGENICITY: Xylene was not genotoxic in several mutagenicity testing assays including the Ames test. In a cancer study sponsored by the National Toxicology Program (NTP), technical grade xylene gave no evidence of carcinogenicity in rats or mice dosed daily for two years. HEARING: Mixed xylenes have been shown to cause measurable hearing loss in rats exposed to 800 ppm in the air for 14 hours per day for six weeks. Exposure to 1450 ppm xylene for 8 hours caused hearing loss while exposure to 1700 ppm for 4 hours did not. Although no information is available for lower concentrations, other chemicals that cause hearing loss in rats at relatively high concentrations do not cause hearing loss in rats at low concentrations. Worker exposure to xylenes at the permissible exposure limit (100 ppm, time-weighted average) is not expected to cause hearing loss.

This product contains Stoddard solvent, a mixture of straight and branched-chain paraffins, naphthenes and aromatic hydrocarbons. Based on studies of Stoddard solvent sample 85-01 sponsored by the American Petroleum Institute, the acute dermal LD₅₀ was found to be >3.0 g/kg and the acute oral LD₅₀ was found to be >5.0 g/kg. Acute inhalation toxicity tests showed a no observable effect level for inhalation of Stoddard solvent at 4.0 mg/l, with eye irritation and slight loss of coordination at 8mg/l, and tremors, CNS depression and death within 7.5 hours exposure to 10 mg/l. In a 28-day dermal study sponsored by the API, moderate skin irritation occurred at 200 mg/kg, with moderate to severe irritation above 1000 mg/kg. The API also determined the primary dermal irritation index to be 4.5, and the primary eye irritation index to be 0.0 at 24 hours. In human sensory response tests, exposure to Stoddard solvent at 0.60 mg/l caused mild eye and nose irritation after 30 minutes, with increased blink rate and eye irritation at 2.4 mg/l, and eye irritation and tearing at 2.7 mg/l. No significant effects on psychomotor performance were noted.

Section 12. Ecological Information

ECOTOXICITY

This material is expected to be toxic to aquatic organisms. The ecotoxicity hazard is based on an evaluation of data for the components or a similar material.

ENVIRONMENTAL FATE

Ready Biodegradability:

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

Section 13. Disposal Considerations

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

Section 14. Transportation Information

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT Shipping Name: PETROLEUM PRODUCTS, N.O.S.

DOT Hazard Class: 3 (Combustible Liquid)

DOT Identification Number: UN1268

DOT Packing Group: III

IMO/IMDG Shipping Name: PETROLEUM PRODUCTS, N.O.S.

IMO/IMDG Hazard Class: 3 (Combustible liquid)

IMO/IMDG Identification Number: UN1268

IMO/IMDG Packing Group: III

Section 15. Regulatory Information

EPCRA 311/312 CATEGORIES:	1. Immediate (Acute) Health Effects:	YES
	2. Delayed (Chronic) Health Effects:	YES
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
06=OSHA Carcinogen	19=DOT Marine Pollutant
09=TSCA 12(b)	20=PA RTK

The following components of this material are found on the regulatory lists indicated.

1,2,4-trimethylbenzene 15, 17, 18, 20

Xylene 15, 17, 18, 20

Diethanolamine 03, 05, 06, 07

CERCLA REPORTABLE QUANTITIES (RQ)/EPCRA 302 THRESHOLD PLANNING QUANTITIES (TPQ):

Component	Component RQ	Component TPQ	Product RQ
Diethanolamine	100 lbs	None	3333 lbs
Xylene	100 lbs	None	8338 lbs

CHEMICAL INVENTORIES:

AUSTRALIA: All the components of this material are listed on the Australian Inventory of Chemical Substances (AICS).

CANADA: All the components of this material are on the Canadian DSL or have been notified under the New Substance Notification Regulations, but have not yet been published in the Canadian Gazette.

PEOPLE'S REPUBLIC OF CHINA: All the components of this product are listed on the draft Inventory of Existing Chemical Substances in China.

EUROPEAN UNION: All the components of this material are in compliance with the EU Seventh Amendment Directive 92/32/EEC.

JAPAN: All the components of this product are on the Existing & New Chemical Substances (ENCS) inventory in Japan, or have an exemption from listing.

KOREA: All the components of this product are on the Existing Chemicals List (ECL) in Korea.

PHILIPPINES: All the components of this product are listed on the Philippine Inventory of Chemicals and Chemical Substances (PICCS).

SWITZERLAND: This material contains components that require notification before sale or importation into Switzerland.

UNITED STATES: All of the components of this material are on the Toxic Substances Control Act (TSCA) Chemical Inventory.

EU RISK AND SAFETY PHRASES:

R10: Flammable.

R37/38: Irritating to respiratory system and skin.

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R67: Inhalation of vapor may cause vertigo and drowsiness.

S23: Do not breathe vapor.

S24: Avoid contact with skin.

S36/37: Wear suitable protective clothing and gloves.

S51: Use only in well-ventilated areas.

S56: Dispose of this material and its container at hazardous or special waste collection point.

S57: Use appropriate container to avoid environmental contamination.

S60: This material and its container must be disposed of as hazardous waste.

S61: Avoid release to the environment. Refer to instructions/Safety data sheets.

WHMIS CLASSIFICATION:

Class B, Division 3: Combustible Liquids
 Class D, Division 2, Subdivision B: Toxic Material -
 Skin or Eye Irritation

Section 16. Other Information

MSDS preparation date: 8/16/12

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Government Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	MSDS - Material Safety Data Sheet
CVX - ChevronTexaco	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
	CAS - Chemical Abstract Service Number
NDA - No Data Available	NA - Not Applicable
<= - Less Than or Equal To	>= - Greater Than or Equal To

MidContinental Chemical Disclaimer

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