Safety Data Sheet

I. Product and Company Identification

PRODUCT: **ISO-FLEX 618-100CRS-LV**

MANUFACTURER:

LymTal International, Inc.
4150 S. Lapeer Rd. Orion, MI 48359
www.lymtal.com
For Non-Emergency Questions,
Hours 8AM To 4PM Eastern Standard Time
(248) 373-8100

EMERGENCY CONTACT: **24-Hour Chemtrec (800)424-9300**

Chemtrec, D.C. Area (800)483-7616

II. Hazards Identification

Classification of the Substance or Mixture:

Skin Corrosion/Irritation, CAT 2, STOT Single Exposure, CAT 3, CNS

Flammable Liquid, CAT 3

Signal Word: **WARNING**

Hazard Statements:

H226	Flammable Liquid And Vapor	Flammable Liquid, Cat 3
H315	Causes Skin Irritation	Skin Corrosion/Irritation Cat 2
H336	May Cause Drowsiness Or Dizziness	Stot Single Exposure, Cat 3, CNS

Precautionary Statements:

P102	Keep Out Of Reach Of Children
P103	Read Label Before Use
P202	Do Not Handle Until All Safety Precautions Have Been Read And Understood
P210	Keep Away From Heat, Hot Surfaces, Sparks, Open Flames And Other Ignition Sources No Smoking
P233	Keep Container Tightly Closed
P240	Ground/Bond Container And Receiving Equipment
P241	Use Explosion Proof Electrical/Ventilation/Lighting/Equipment
P242	Use Only Non Sparking Tools
P243	Take Precautionary Measures Against Static Discharge
P261	Avoid Breathing Vapors
P264	Wash Thoroughly After Handling
P271	Use Only Outdoors Or In A Well Ventilated Area
P280	Wear Protective Gloves/Protective Clothing/Eye Protection/Face Protection
P303 + P361+P353	If On Skin (Or Hair): Take Off Immediately All Contaminated Clothing, Rinse Skin With Water/Shower

P304+P340+P314	If Inhaled: Remove Person To Fresh Air And Keep Comfortable For Breathing, Get Medical Advice/Attention If You Feel Unwell.
P332+P313	If Skin Irritation Occurs, Get Medical Advice/Attention
P312	Call A Poison Center/Doctor If You Feel Unwell
P362	Take Off Contaminated Clothing And Wash Before Reuse
P370+P378	In Case Of Fire: Use Carbon Dioxide, Foam, Dry Chemical, Water Fog To Extinguish
P403+P235	Store In A Well Ventilated Place. Keep Cool
P405	Store Locked Up
P501	Dispose Of Contents/Container In Accordance With Local/Regional/National/International/ Regulations

III. Composition/Information on Ingredients

Ingredients:	**CAS #:**	**CONTENT**
Trimethoxy(2-methylpropyl)silane	18395-30-7	>=90%-<=100%

California Proposition 65 ingredients
None

Section 313 Supplier Notification
This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 (40CFR372)

None

IV. First Aid Measures

Inhalation	Remove victim from exposure. If difficulty with breathing, administer oxygen and seek medical assistance
Eyes	Flush eyes with cold water for a minimum of 15 minutes, lifting lower and upper eye lids throughout. Seek immediate medical attention.
Skin	Immediately remove contaminated clothing. Wash thoroughly with soap and water. If irritation persists seek medical attention. Wash contaminated clothing before reuse.
Ingestion	Have the mouth rinsed with water. Do not give anything by mouth to an unconscious person. Call a physician immediately.

V. Fire Fighting Methods

HMIS Hazard Rating No. 2
Flash Point: 39 º C (102.2 º F) **Method: DIN EN ISO 13736**
General Hazard: Decomposition and combustion products may be toxic.
Auto-Ignition Temp.: Not determined
Limits of Flammability LEL: Not Available UEL: Not Available

Extinguishing Media	For small fires, use water spray, foam, CO2, or dry chemical. For large fires, use water spray, fog, or alcohol foam. DO NOT use high volume water jet. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above the flashpoint.
Special Fire & Unusual Hazards	Move containers from area if it can be done without risk. Cool fire-exposed containers with water from the side. As in any fire, wear NIOSH/MSHA approved, pressure demand self contained breathing apparatus and full protective gear.

VI. Accidental Release Measures

Personal and Environmental Precautions: Keep away from heat and sources of ignition. Remove sources of ignition and ventilate area. Run off may create fire or explosion hazard in sewer. Assure sufficient ventilation. Obey relevant local, state provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

Waste Disposal Method: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/ national regulations.

VII. Handling And Storage

Precautions for Sage Handling: Wear personal protective equipment. Vapors may spread long distances and travel to areas away from the work site before igniting or flashing back to the vapor source. Keep away from heat, sparks, flames and other sources of ignition. Keep container tightly closed. Use only with adequate ventilation.

Conditions for Safe Storage, Including Any Incompatibilities:

Advice on protection against fire and explosion: Take precautionary measures against static charges, keep away from sources of ignition. Explosion protection equipment required. Danger of explosion from residual product fumes; therefore avoid spark production throughout cutting, grinding, or welding work in the area of the container. When repairs of the production system are to be made (e.g. welding work), the section to be repaired must be essentially free of product. This material may have low electrical conductivity and therefore may accumulate dangerous levels of static electricity. An ignitable vapor-air mixture can form inside storage tanks.

The user must be sure to dissipate static charge by careful bonding and grounding of all equipment and personnel involved in the fluid transfer with continuity checks to prove effectiveness. Additional precautions against fire and explosion are the use of inert gas to purge vapor space; dip-pipes while filling vessels, especially lines vessels; grounded tank level floats; reduced flow velocity; self-closing valves on transfer lines and flame arrestors in vent lines.

Additional guidance on fire and explosion protection may be found in various consensus standards, Including NFPA 30, 69, and 77 and API 2003 as well as OSHA regulation 29CFR1910.106.

Storage: Keep containers tightly closed in a cool, well ventilated place. Protect from moisture. Residual vapors might explode on ignition; do not apply heat, cut, drill, grind or weld on or near this container.

VIII. Exposure Controls / Personal Protection

Engineering Measures: Use this product preferably in a closed system, or use process enclosures, local exhaust ventilation or engineering controls to minimize airborne exposure.

Personal Protection Equipment:

Respiratory Protection: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

Hand Protection: Gloves made out of Nitrile rubber/Nitrile latex (NBR) need to have a material thickness of .35 mm and a break through time of greater than or equal to 480 minutes. Gloves made out of fluorinated rubber (FKM) need to have a material thickness of .4 mm and a break through time of greater that or equal to 480 minutes.

The above mentioned hand protection is based on knowledge of the chemistry and anticipated uses of this product but it may not be appropriate for all workplaces. A hazard assessment should be conducted prior to

use to ensure suitability of gloves for specific work environments and processes prior to use. Use impermeable gloves.

Eye Protection: Use chemical splash goggles or face shield.

Skin and Body Protection: A safety shower and eye wash fountain should be readily available. To identify additional Personal Protective Equipment requirements (PPE), it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

Hygiene Measures: Avoid contact with skin, eyes, and clothing. Do not inhale vapors or aerosols. Do not eat, drink, or smoke when using this product. Remove contaminated or saturated clothing.

IX. Physical And Chemical Properties

Boiling Point (°C):	**150° C (1013 hPa)** **Method: DIN 51 751**	Partition coefficient: n-octanol/water	log Pow: 2.1 (20° C)
Physical State:	Liquid (20°C) (1013 hPa)	Method:	QSAR
VOC, Content:	**~ 325 g/L**		
Melting Point (°C)	< -180° C (1013 hPa) Method: OECD TG 102	Solubility in Water:	Not miscible. Decomposition by hydrolysis.
Density	0.93 g/cm3 (20° C) Method: DIN 51757		
Freezing Point (°C):	N/D	**Specific Gravity @20° C**	**N/D**
Vapor Pressure @ 20° C	Ca. 3 hPa @ 20° C	pH:	N/D
Vapor Density	N/D	Evaporation Rate:	N/D
Odor Threshold:	N/D	**Odor:**	**Fruity**
Appearance:	**Colorless liquid**	Viscosity, dynamic (20°C)	0.8 mPa.s
N/A = Not Available	N/D=NOT Determined	Ca. = Approximate	

Other Information: Vapors can for explosive mixtures with air.

X. Stability And Reactivity

Reactivity	No dangerous reaction known under conditions of normal use.
Stability	Stable under recommended storage conditions
Incompatibility:	Water, atmospheric humidity
Hazardous Decomposition Products	Methanol in case of hydrolysis.
Conditions To Avoid	Vapors can form explosive mixtures with air. Keep away from heat and sources of ignition.
Possibility of hazardous reactions	Reacts with water.

XI. Toxicity Information

Acute Oral Toxicity	LD50 Rat: >2000 mg/kg Method: OECD Test Guideline 401 Assessment: The substance or mixture has no acute toxicity
Acute Inhalation Toxicity	LC50 Rat: 11 mg/l 4 h / dust/mist Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhalation toxicity
Skin Irritation	Rabbit Skin irritation Method: OECD Test Guideline 404
Eye Irritation	Rabbit No eye irritation Method: OECD Test Guideline 405

Sensitization	Buehler Test Guinea Pig: Does not cause skin sensitization Method: OECD Test Guideline 406
Repeated Dose Toxicity	Oral Rat/ 28-day NOAEL: >= 1000 mg/kg Method: OECD Test Guideline 407 Test Substance: Structurally similar substance
Repeated Dose Toxicity	Species: Rat Application Route: Inhalation (vapor) Exposure duration: 90-day NOAEC: >= 2540 mg/m^3 Method: OECD TG 413 Test Substance: Structurally similar substance
Assessment of STOT single exposure	Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.
Assessment of STOT repeat exposure	No evidence for hazardous properties
Risk of aspiration toxicity	No evidence of aspiration toxicity
Gentoxicity in vitro	Ames test salmonella typhimurium Negative Method: OECD TG 471 Chromosomal aberration V 79 cells Negative Method: OECD TG 473 Test Substance: Structurally similar substance Gene mutation CHO-cells Negative Method: OECD TG 476 Test Substance: Structurally similar substances
Gentoxicity in vivo	Micronucleus test mouse oral Negative Method: OECD TG 474 Test Substance: Structurally similar substance
Carcinogenicity	No evidence that cancer may be caused
Carcinogenicity Assessment	Contains no carcinogenic substances as defined by NTP, IARC and/or OSHA
Toxicity to reproduction	1 generation Oral Rat NOAEL of parents: >= 1000 mg/kg NOAEL F1: >= 1000 mg/kg Method: OECD TG 415 Test Substance: Structurally similar substance

XII. Ecological Information

Toxicity

Toxicity to Fish: LC50 Brachydanio Rerio: >100 mg/L / 96 h
Method: OECD TG 203

Toxicity in aquatic invertebrates: EC50 Daphnia Magna: >865 mg/L / 48 h
Method: OECD TG 202

Toxicity to algae: EC50 Desmodesmus Subspicatus (green algae):>1170 mg/L 72 h
Method: OECD TG201
NOEC Desmodesmus Subspicatus (green algae):221 mg/L 72 h
Method: OECED TG 201
Toxicity to bacteria: EC 10 Pseudomonas Putida: 1200 ,h/L / 5h
Method: Bringmann und Kühn, Z Wasser Abwasser Forsch. 10, 87-98 (1977)
Tested in the presence of emulsifiers
EC50 local activated sludge: >1000 mg/L / 3 h
Method: OECD TG 209
NOEC local activated sludge: >=1000 mg/L / 3h
Method: OECD TG 209
Toxicity in terrestrial plants: EC50 Brassica Alba: >100 mg/kg / 336 h
Method: OECD 208
EC50 Triticum Aestivum: >100 mg/kg / 336 h
Method: OECD 208
EC50 Lepidium Sativum: >100 mg/kg / 336 h
Method: OECD 208

Persistence and Degradability
Biodegradability: 47% Not readily biodegradable. Method: OECD TG 301 B
Bioaccumulative Potential
Bioaccumulation: low
Mobility in soil
Adsorption on the floor: low
Other Adverse Effects
The data we have at our disposal do not necessitate identification concerning environmental hazard.

XIII. Disposal Considerations

Waste Treatment Methods
Product: Handle disposal of waste material in a manner that complies with all applicable local, state, provincial and federal regulations. Since empty containers retain product residue, follow MSDS and label warnings even after container is emptied. Residual vapors might explode on ignition; do not apply hear, cut, drill, grind, or weld on or near this container.

Uncleaned Packaging: Do not reuse empty containers and dispose of in accordance with regularions issued by the appropriate local authorities. If there is product residue in the emptied container, follow directions for handling on the container's label. Incorrect disposal or reuse of this container is illegal and can be dangerous. Other countries, observe the national regulations.

XIV. Transport Information

DOT Road/Rail

UN Number: UN 1993
UN proper shipping name: Flammable liquids, n.o.s. (trimethoxy (2-methylpropyl)silane)
Transport hazard class(es): 3
Packing group: III
Special precautions for user: yes Road and Rail: In the U.S. this material may be classified as combustible liquid. Combustible liquids are not regulated in packages 450 liters or less. This applies for shipments by road and rail only.

Air Transport ICAO-TI/IATA-DGR

UN Number: UN 1993
UN proper shipping name: Flammable liquid, n.o.s. (trimethoxy (2-methylpropyl)silane)
Transport hazard class(es): 3
Packing group: III
Special Precautions for user: Yes
IA TA-C: Maximum Net Quantity Per Package 220 L

IA TA-P: Maximum Net Quantity Per Package 60 L

Sea Transport IMDG-Code/GGVSee (Germany)

UN Number: UN 1993
UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (trimethoxy (2-methylpropyl)silane)
Transport hazard class(es): 3
Packing group: III
Special precautions for user: No EmS: F-E, S-E
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: for transport see regulatory information.

XV. Regulatory Information

OSHA	None listed
Clean Air Act Section (112)	None listed
US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substances (40 CFRR 355, Appendix A)	This material does not contain any components with a SARA 302 RQ
Sara 304 Emergency Release Notification	This material does not contain any components with a section 304 EHS RQ
US. EPA CERCLA Hazardous Substances (40 CFR 302)	This material does not contain any components with a CERCLA RQ
SARA Title III Section 311/312 Hazard Categories	This product meets the criteria only for the listed hazard classes: • Acute Health Hazard • Fire Hazard
SARA Title III Section 313 Reportable Substances	None listed
Toxic Substances Control Act (TSCA)	None listed

State Regulations

California Proposition 65 (US. California Safe Drinking Water & Toxic Environment Act)	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm. An employer using HMIS/NFPA labeling must through training ensure that its employees are fully aware of the hazards of the chemicals used.
HMIS Ratings	Health: 2 Flammability: 2 Physical Hazard: 1
NFPA Ratings	Health: 1 Flammability: 2 Reactivity: 1

XVI. Other Information

THE INFORMATION HEREIN HAS BEEN COMPLIED FROM SOURCES BELIEVED TO BE RELIABLE AND IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, LymTal INTERNATIONAL INC. CANNOT GIVE ANY GUARANTEES REGARDING INFORMATION FROM OTHER SOURCES, AND EXPRESSLY DOES NOT MAKE ANY WARRANTIES, NOR ASSUMES ANY LIABILITY, FOR ITS USE.

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