Safety Data Sheet

I. Product and Company Identification

PRODUCT: **ISO-FLEX 618-300**

CORROSION INHIBITOR

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

Signal Word: **WARNING**

Hazard Statements:

H227	Combustible Liquid	Flammable Liquid, Cat 4
H315	Causes Skin Irritation	Skin Corrosion/Irritation Cat 2
H402	Harmful To Aquatic Life	Aquatic Environmental Hazard, Cat 3

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
P264	Wash Thoroughly After Handling
P270	Do Not Eat/Drink/Smoke While Using This Product
P271	Use Only Outdoors Or In A Well Ventilated Area
P273	Avoid Release To The Environment
P280	Wear Protective Gloves/Protective Clothing/Eye Protection/Face Protection
P301+P312	If Swallowed: Call A Poison Center Or Doctor/Physician If You Feel Unwell
P308+P313	If Exposed Or Concerned: Get Medical Advice/Attention
P302+ P362+P353	If On Skin: Take Off 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 Fell Unwell
P305+P351+P315	If In Eyes: Rinse Cautiously With Water For Several Minutes, Remove Contacts Lenses If Present And Easy To Do. Continue Rinsing.
P330	Rinse Mouth

P332+P313	If Skin Irritation Occurs, Get Medical Advice/Attention
P337+P313	If Eye Irritation Persists: Get Medical Advice/Attention
P362+P364	Take Off Contaminated Clothing And Wash Before Reuse
P370+P378	In Case Of Fire: Use Carbon Dioxide, Foam, Dry Chemical, Water Fog To Extinguish
P391	Collect Spillage
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**
NJTS R No. 56705700001-5318P	Trade Secret	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

Description Of First Aid Measures

General Advice — Remove contaminated or saturated clothing immediately and dispose of safely.

Inhalation — If aerosol or mists are inhaled, take affected persons out into the fresh air. If symptoms persist, consult a physician for treatment.

Eyes — In case of contact, immediately flush eyes with plenty of water, also under the eyelids, for at least 15 minutes or until all material has been removed. Obtain medical attention.

Skin — Immediately wash skin with plenty of soap and water. Remove contaminated clothing and continue rinsing with water for 15-20 minutes. Obtain medical attention immediately if symptoms occur. Wash clothing before reuse.

Ingestion — If swallowed, rinse mouth (only if the person is conscious). Call a physician immediately.

Most Important Symptoms And Effects, Both Acute And Delayed
Symptoms
None known

Indication Of Any Immediate Medical Attention And Special Treatment Needed
If required, therapy of irritative effect. After absorbing large amounts of substance: administration of activated charcoal, acceleration of gastrointestinal passage.

V. Fire Fighting Methods

Extinguishing Media

Suitable Extinguishing Media: Water Spray or Fog, Foam, Carbon Dioxide (CO_2), Dry Chemical

Unsuitable Extinguishing Media: High Volume Water Jet

Special Hazards Arising From The Substance Or Mixture — Combustible liquid. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above the

flashpoint. In the case of fire, the following hazardous smoke fumes may be produced: carbon monoxide, carbon dioxide.

Advice For Firefighters

Water used to extinguish fire should not enter drainage systems, soil or stretches of water. Ensure there are sufficient retaining facilities for water used to extinguish fire. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

VI. Accidental Release Measures

Personal Precautions, Protective Equipment And Emergency Procedures : Use personal protective equipment. Ensure adequate ventilation.

Environmental Precautions: Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds groundwater or soil.

Methods And Material For Containment And Clean Up: Contain spillage, and then collect with non-combustible material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulation (see section 13)

Additional Advice: Remove sources of ignition and ventilate area. Run off may create fire or explosion hazard in sewer. Assure sufficient ventilation.

VII. Handling And Storage

Handling and Storage

Precautions For Safe Handling: Wear personal protective equipment; See section 8.
Vapors may spread long distances and travel to areas away from the work site before igniting or flashing back to the vapor source. Avoid moisture. Keep away from heat. Keep away from sparks, flames and other sources of ignition. Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Use with adequate ventilation. The need for grounding and bonding of containers in accordance with OSHA 29 CFR 1910.106 and NFPA 77 should be assessed for all product transfers. Follow all SDS/label precautions even after the container is emptied because it may retain product residues. Wash thoroughly after handling.

Conditions For Safe Storage, Including Any Incompatibilities

Advice On protection Against Fire And Explosion: This material may have a 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 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 lined 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.

Follow all SDS/label precautions even after container is emptied because it may retain product residues.

Storage: Keep containers tightly closed in cool, well-ventilated place. Protect from moisture.

VIII. Exposure Controls / Personal Protection

Control Parameters

Other Information

Contains no substances with occupational exposure limit values.

Exposure Controls

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

Personal Protective Equipment

Respiratory Protection: A respiratory protection program that meets OSHA 1910.134 and ANXI 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:

Glove Material	for example, butyl-rubber
Material Thickness	0.5 mm
Break Through Time	>= 480 min
Glove Material	for example, Fluorinated rubber (Viton)
Material Thickness	0.4 mm
Break Through Time	>= 480 min

Use impermeable gloves.

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.

Selection of protective gloves to meet the requirements of specific workplaces. Suitability for specific workplaces should be clarified with protective glove manufacturers..

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 (PPE) requirements, 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 the product. Remove contaminated or saturated clothing.

IX. Physical And Chemical Properties

Boiling Point (°C): Method DIN 51 751	186 ° C (1013hPa)	Flash Point: Method DIN 51758	66°C
Melting Pt/Freezing Pt: Method OECD TG 102	<-72° C (1013hPa)	Solubility in Water: Decomposition by hydrolysis	Not miscible
Flammability (solid, gas) Method EEC 92/69/EEC, A 12	not flammable	Specific Gravity @20° C	N/A
pH:	N/D	Lower Explosion limit: Method DIN51649	0.39%(V) 98°C
Vapor Pressure: Method OECD Test Guideline 104 dynamic method	33Pa (20°C) 49Pa (25°C)	Upper Explosion limit: Method DIN 51649	8.47%(V) 150°C
		Vapor Density	N/D
		Relative Density Method OECD Test Guideline 109	0.88 (20°C)

Partition coefficient: n-octanol/water	log Pow: 3.6 Method QSAR log Kow: 2.033 (20°C)	Autoignition Temperature (1013 hPa)	240°C
Thermal decomposition:	N/D	Viscosity, dynamic:	N/D
Odor:	Fruity, ester-like	Viscosity, kinematic: Method QSAR	1.4mm2/s (20°C)
Appearance:	Colorless	Evaporation Rate:	N/A
Form:	Liquid	Odor Threshold:	N/D
Density:	ca 0.94 g/cm 3 (20° C)	Physical State: (1013 hPa)	Liquid(20°)

N/A = Not Available N/D=NOT Determined Ca. = Approximate

Other Information

Explosiveness-vapors can form explosive mixtures in air
Metal Corrosion-Not to be expected in view of the structure

X. Stability And Reactivity

HMIS Hazard Rating No. 1

Reactivity:	No dangerous reaction known under conditions of normal use.
Chemical Stability:	Stable under recommended storage conditions.
Possibility of Hazardous Reactions:	No dangerous reaction known under conditions of normal use.
Conditions To Avoid:	Keep away from heat and sources of ignition.
Incompatible Materials:	Water
Hazardous Decomposition Products:	Ethanol in case of hydrolysis.

XI. Toxicity Information

Information On Toxicological Effects

Acute oral toxicity- LD50 Rat: >5000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity- LD50 Rat: 5.88 mg/l / 4h / dust/mist
Method: OECD Test Guideline 403 Assessment: no acute inhalation toxicity

Acute dermal toxicity- LD50 Rat: >2000 mg/kg
Method: OECD Test Guideline 402 Assessment: no acute dermal toxicity

Skin irritation- Rabbit Skin irritation
Method: OECD Test Guideline 404

Eye irritation- Rabbit No eye irritation
Method: OECD Test Guideline 405

Sensitization- Maximization 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

Assessment of STOT single exposure-	Assessment The substance or mixture is not classified as specific target organ toxicant, single exposure.
Assessment of STOT repeat exposure-	Assessment The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Risk of aspiration toxicity-	No aspiration toxicity classification
Gentoxicity in vitro-	Ames test Salmonella typhimurium- negative Method: OECD TG 471
	chromosomal aberration Chinese hamster (V79-cells)- negative Method: OECD TG 473
	chromosomal aberration Chinese hamster (CHO K1-cells)- negative Method: OECD TG 476
Gentoxicity in vitro-	chromosomal aberration Mouse oral - negative Method: OECD TG 474
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-	Animal model trials have produced no evidence of fertility damage

XII. Ecological Information

Toxicity

Toxicity to fish- LC50 Oncorhynchus mykiss (rainbow trout): 85 mg/l / 96 h Method: OECD 203 (literature value)

Toxicity in aquatic invertebrates- EC50 Daphnia magna (water flea): >49.1 mg/l / 48 h Method: OECD 202

Toxicity to algae- NOEC Desmodesmus subspicatus (green algae): >=36 mg/l / 72 h Method: OECD 201

Toxicity in terrestrial plants- EC50 Trifolium omithopadioides: >100 mg/l / 17 d Method: OECD 208

EC50 Lepidium sativum: >100 mg/l / 17 d Method: OECD 208

EC50 Triticum aestivum: >100 mg/l / 17 d Method: OECD 208

Toxicity in other terrestrial non-mammals- LC50 Eisenia foetida foetida: >1000 mg/l / 14 d Method: OECD207

Persistence and degradability

Biodegradability- Exposure time: 28 d Result: 12% Not readily biodegradable Method: OECD 301 C

Bioaccumulative potential

Bioaccumulation-no data available

Mobiltiy in soil

Mobility-Absorption on the floor: low

Other adverse effects

Further information-The data we have at our disposal do not necessitate identification concerning environmental hazard.

XIII. Disposal Considerations

Waste Treatment Methods

Product

Waste must be disposed of in accordance with federal, state and local regulations. Since empty containers retain product residue, follow SDS and label warnings even after container is emptied. Residual vapors might explode on ignition; do not apply heat, cut drill, grind, or weld on or near this container.

Uncleaned Packaging

Do not reuse empty containers and dispose of in accordance with the regulations 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 SHIPPING INFORMATON (49 CFR 172.101):

Not Regulated in packages 450 liters or less

For USA Only:	In packaging exceeding 450 L, this product must be classified, placarded, marked and shipped as Combustible Liquid to the USA.		
Proper Shipping Name	Combustible liquid, N.O.S (Alkyltrialkoxsilane)		
Hazard Class	C PG III		
I.D. Number	NA 1993	Label(s)	Combustible
Transport in bulk according to-	Annex II of MARPOL 73/78 and the IBC Code for transport approval see regulatory information		

Air transport ICAO-TI/ATA-DGR

Not dangerous according to transport regulations

Sea transport IMDG-Code/GGVSee (Germany)

Not dangerous according to transport regulations

XV. Regulatory Information

US Federal Regulations

OSHA If listed, chemical specific standards apply to the product or component	None
Clean Air Act Section (112) If listed, chemical specific standards apply to the product or component	None
CERCLA Reportable Quantities	None Listed
SARA Title III Section 313 Reportable Substances	None
SARA Title III Section 311/312 Hazard Categories	Acute Health Hazard / Fire Hazard

Toxic Substances Control Act (TSCA)
If listed, non-proprietary substances are subject to export notification under Section 12 (b) of TSCA: None listed

State Regulations

California Proposition 65	None
HMIS Ratings	Health: 2 Flammability: 2 Physical Hazard: 1
NFPA Ratings	Health: 2 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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