



1407089 GSLA T LMM-6000 500GRAMS

Product specification Version

RS_FP_603463

Revision Date Print Date **10/13/2015** 11/30/2015

Material number

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SECTION 1. IDENTIFICATION

Product name : GSLA T LMM-6000 500GRAMS

00000000001407089

Product code : RS_FP_603463

Manufacturer or supplier's details

Company name of supplier : Ferro Corporation

Address : 6060 Parkland Blvd. Suite 250

Mayfield Heights OH 44124-4185

Telephone : (216) 875-5600

Disposal considerations : Dispose of wastes in an approved waste disposal facility.

Emergency telephone number

CHEMTREC In-Country : (800)424-9300

Number

CHEMTREC Global Number : +(1)-703-527-3887(Call Collect)

Recommended use of the chemical and restrictions on use

Recommended use : Industrial use

Restrictions on use : Reserved for industrial and professional use.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 2

Eye irritation : Category 2A

Germ cell mutagenicity : Category 1B

Carcinogenicity : Category 1A

Reproductive toxicity : Category 1A

Specific target organ toxicity

- single exposure

: Category 1

Specific target organ toxicity

- single exposure

: Category 3 (Respiratory system, Central nervous system)

Specific target organ toxicity

- repeated exposure

: Category 1

GHS Label element



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Hazard pictograms







Signal word Danger

Hazard statements : H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.

H340 May cause genetic defects.

H350 May cause cancer.

H360 May damage fertility or the unborn child.

H370 Causes damage to organs.

H372 Causes damage to organs through prolonged or repeated

exposure.

Precautionary statements

Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. -No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ ventilating/ lighting/

equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ eye protection/ face protection.

P281 Use personal protective equipment as required.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P307 + P311 IF exposed: Call a POISON CENTER or doctor/ physician.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.



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P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Paint

Hazardous components

Chemical Name	CAS-No.	Concentration (%)
ethanol	64-17-5	>= 30 - < 50
Trade Secret Molybdenum Compound	Not Assigned	>= 30 - < 50
Trade Secret Mica compound	Not Assigned	>= 5 - < 10
Trade Secret Vanadium Compound	Not Assigned	>= 1 - < 5
propane-1,2-diol	57-55-6	>= 1 - < 5
2-butoxyethanol	111-76-2	>= 1 - < 5
ethyl acetate	141-78-6	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

General advice : Consult a physician.

If inhaled : Remove to fresh air.

If unconscious place in recovery position and seek medical

advice.

Never give anything by mouth to an unconscious person.

In case of skin contact : Wash off immediately with soap and plenty of water.

If a person feels unwell or symptoms of skin irritation appear,

consult a physician.

In case of eye contact : Rinse immediately with plenty of water and seek medical

advice.

If swallowed : Do NOT induce vomiting.

Rinse immediately with plenty of water and seek medical

advice.

Most important symptoms and effects, both acute and

delayed

Causes serious eye irritation. May cause respiratory irritation.

May cause drowsiness or dizziness.

May cause genetic defects.

May cause cancer.

May damage fertility or the unborn child.

Causes damage to organs.

Causes damage to organs through prolonged or repeated



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exposure.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Unsuitable extinguishing

media

: Do not use a solid water stream as it may scatter and spread

fire.

Specific hazards during

firefighting

: Exposure to decomposition products may be a hazard to

health

Do not allow run-off from fire fighting to enter drains or water

courses.

Specific extinguishing

methods

:

Further information : Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

Special protective equipment

for firefighters

: In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation.

Follow safe handling advice and personal protective

equipment recommendations.

Environmental precautions : Do r

: Do not flush into surface water or sanitary sewer system.

Prevent product from entering drains.

Methods and materials for containment and cleaning up

: Sweep up and shovel into suitable containers for disposal. Clean contaminated floors and objects thoroughly while

observing environmental regulations.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Do not get in eyes or mouth or on skin.

For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the

application area.

Do not use in areas without adequate ventilation. Keep away from heat and sources of ignition.

Conditions for safe storage : Keep in a dry, cool and well-ventilated place.



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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type	Control	Basis
·		(Form of	parameters /	
		exposure)	Permissible	
			concentration	
ethanol	64-17-5	TWA	1,000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z-1
		TWA	1,000 ppm 1,900 mg/m3	OSHA P0
		STEL	1,000 ppm	ACGIH
Trade Secret Molybdenum		TWA	5 mg/m3	OSHA Z-1
Compound			(Molybdenum)	
		TWA	0.5 mg/m3	ACGIH
		(Respirable fraction)	(Molybdenum)	
		TWA	5 mg/m3 (Molybdenum)	OSHA P0
Trade Secret Mica compound		TWA	3 mg/m3	ACGIH
		(Respirable		
		fraction)	00.14	
		TWA (Dust)	20 Million	OSHA Z-3
			particles per cubic foot	
		TWA	3 mg/m3	NIOSH REL
		(Respirable)	3 mg/m3	MOSITIVE
		TWA	3 mg/m3	OSHA P0
		(respirable		
		dust fraction)		
Trade Secret Vanadium		C (Dust)	0.05 mg/m3	NIOSH REL
Compound			(Vanadium)	
		C (Fumes)	0.05 mg/m3 (Vanadium)	NIOSH REL
propane-1,2-diol	57-55-6	TWA	10 mg/m3	US WEEL
2-butoxyethanol	111-76-2	TWA	20 ppm	ACGIH
		TWA	5 ppm 24 mg/m3	NIOSH REL
		TWA	50 ppm 240 mg/m3	OSHA Z-1
		TWA	25 ppm 120 mg/m3	OSHA P0
ethyl acetate	141-78-6	TWA	400 ppm	ACGIH
,		TWA	400 ppm 1,400 mg/m3	NIOSH REL
		TWA	400 ppm 1,400 mg/m3	OSHA Z-1
		TWA	400 ppm 1,400 mg/m3	OSHA P0
	64742-95-6	TWA	500 ppm	OSHA Z-1



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light, aromatic		2,000 mg/m3	
	TWA	400 ppm 1,600 mg/m3	OSHA P0
	TWA	200 mg/m3 (as total hydrocarbon vapor)	ACGIH

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Samplin g time	Permissible concentratio n	Basis
2-butoxyethanol	111-76-2	Butoxyaceti c acid (BAA)	Urine	End of shift (As soon as possible after exposure ceases)	200 mg/g Creatinine	ACGIH BEI

Engineering measures : Apply technical measures to comply with the occupational

exposure limits.

Provide adequate ventilation.

Personal protective equipment

Respiratory protection : When workers are facing concentrations above the exposure

limit they must use appropriate certified respirators.

Hand protection

Material : Protective gloves

Eye protection : Safety glasses with side-shields

Ensure that eyewash stations and safety showers are close

to the workstation location.

Skin and body protection : impervious clothing

Protective measures : Wear suitable protective equipment.

Avoid contact with skin.

When using do not eat, drink or smoke.

Hygiene measures : Remove contaminated clothing and protective equipment

before entering eating areas.

Wash hands before breaks and immediately after handling

the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : paste

Colour : yellow

Odour : characteristic



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Odour Threshold : No data available

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pН : No data available

: No data available Melting point/range

Boiling point/boiling range : 36 °C

: 14 °C Flash point

Method: calculated

not write protected : No data available

Evaporation rate

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

No data available Relative density

Bulk density No data available

Solubility(ies)

Water solubility : soluble

Partition coefficient: n-

octanol/water

: No data available

: not determined Auto-ignition temperature

Thermal decomposition : No data available

Viscosity

Viscosity, kinematic : No data available

No data available Oxidizing properties

Refractive index : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No data available

Chemical stability : No data available

Possibility of hazardous

reactions

: No data available

Conditions to avoid : Incompatible materials

Incompatible materials : Incompatible with oxidizing agents.



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Incompatible with strong acids and bases.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

inhalation (dust/mist/fume)

inhalation (vapour)

Skin

Eye contact Ingestion

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate : 2,912 mg/kg

Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : > 40 mg/l

Exposure time: 4 h

Test atmosphere: vapour Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 5,000 mg/kg

Method: Calculation method

Components:

ethanol:

Acute oral toxicity : LD50 Oral (Rat): 7,060 mg/kg

Acute inhalation toxicity : LC50 (Rat): 124.7 mg/l

Exposure time: 4 h

Trade Secret Molybdenum Compound:

Acute inhalation toxicity : LC50 (Rat): > 5,840 mg/m3

Exposure time: 4 h

Trade Secret Vanadium Compound:

Acute inhalation toxicity : LC50 (Rat): 7,800 μg/m3

Exposure time: 4 h

propane-1,2-diol:

Acute oral toxicity : LD50 Oral (Rat): 20 g/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 20,800 mg/kg

2-butoxyethanol:

Acute oral toxicity : LD50 Oral (Rat): 470 mg/kg

Acute dermal toxicity : Acute toxicity estimate : 1,100 mg/kg

Method: Converted acute toxicity point estimate

ethyl acetate:

Acute oral toxicity : LD50 Oral (Rat): 5,620 mg/kg



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Acute inhalation toxicity : LC50 (Mouse): 1500 ppm

Exposure time: 4 h

Acute dermal toxicity : LD50 Dermal (Rabbit): > 18,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information. Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

May cause genetic defects.

Carcinogenicity

May cause cancer.

IARC Group 1: Carcinogenic to humans

ethanol 64-17-5

Group 2B: Possibly carcinogenic to humans

solvent naphtha (petroleum), 64742-95-6

light, aromatic

ACGIH Confirmed animal carcinogen with unknown relevance to

humans

2-butoxyethanol 111-76-2

Trade Secret Molybdenum

Compound

ethanol 64-17-5

solvent naphtha (petroleum), 64742-95-6

light, aromatic

OSHA No component of this product present at levels greater than or

equal to 0.1% is identified as a carcinogen or potential

carcinogen by OSHA.

NTP No component of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.

Reproductive toxicity

May damage fertility or the unborn child.



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STOT - single exposure

May cause respiratory irritation. May cause drowsiness or dizziness.

Causes damage to organs.

STOT - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

ethanol:

Toxicity to fish : LC50 (Fish): 12 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: LC50 (Daphnia (water flea)): 9,268 mg/l

Exposure time: 48 h

Trade Secret Vanadium Compound:

Toxicity to fish : LC50 (Fish): 1.5 mg/l

Exposure time: 144 h

propane-1,2-diol:

Toxicity to fish : LC50 (Fish): 41 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia (water flea)): 10,000 mg/l

Exposure time: 24 h

Toxicity to algae : EC50 (algae): 19,000 mg/l

Exposure time: 96 h

2-butoxyethanol:

Toxicity to fish : LC50 (Fish): 1,490 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

EC50 (Daphnia (water flea)): 1,698 mg/l

Exposure time: 24 h

ethyl acetate:

Toxicity to fish : LC50 (Fish): 220 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia (water flea)): 560 mg/l

Exposure time: 48 h

Toxicity to algae : EC50 (algae): 3,300 mg/l

Exposure time: 48 h



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Persistence and degradability

Components:

ethanol:

Biodegradability : Remarks: No data available

Trade Secret Molybdenum Compound:

Biodegradability : Remarks: No data available

Trade Secret Mica compound:

Biodegradability : Remarks: No data available

Trade Secret Vanadium Compound:

Biodegradability : Remarks: No data available

propane-1,2-diol:

Biodegradability : Remarks: No data available

2-butoxyethanol:

Biodegradability : Remarks: No data available

ethyl acetate:

Biodegradability : Remarks: No data available

Bioaccumulative potential

Components:

ethanol:

Bioaccumulation : Remarks: No data available

Trade Secret Molybdenum Compound:

Bioaccumulation : Remarks: No data available

Trade Secret Mica compound:

Bioaccumulation : Remarks: No data available

Trade Secret Vanadium Compound:

Bioaccumulation : Remarks: No data available

propane-1,2-diol:

Bioaccumulation : Remarks: No data available

2-butoxyethanol:

Bioaccumulation : Remarks: No data available

ethyl acetate:

Bioaccumulation : Remarks: No data available

Mobility in soil

Components:

ethanol:

Distribution among : Remarks: No data available

environmental compartments



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Trade Secret Molybdenum Compound:

Distribution among : Remarks: No data available

environmental compartments

Trade Secret Mica compound:

Distribution among : Remarks: No data available

environmental compartments

Trade Secret Vanadium Compound:

Distribution among : Remarks: No data available

environmental compartments

propane-1,2-diol:

Distribution among : Remarks: No data available

environmental compartments

2-butoxyethanol:

Distribution among : Remarks: No data available

environmental compartments

ethyl acetate:

Distribution among : Remarks: No data available

environmental compartments

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of wastes in an approved waste disposal facility.

SECTION 14. TRANSPORT INFORMATION

International Regulation

IATA-DGR

UN number : UN 1263

Proper shipping name : Paint related material

(ethanol, 2-butoxyethanol)

Class : 3
Packing group : II
Labels : 3
Packing instruction (cargo : 364

acking instruction (

aircraft)

Packing instruction : 353

(passenger aircraft)

IMDG-Code

UN number : UN 1263



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Proper shipping name : PAINT RELATED MATERIAL

(ethanol, 2-butoxyethanol)

Class : 3
Packing group : II
Labels : 3
EmS Code : F-E, S-E
Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

49 CFR DOT

UN/ID/NA number : UN

1263

Proper shipping name : Paint related material

(ethanol, 2-butoxyethanol)

Class : 3
Packing group : II
Labels : 3
ERG Code : 128
Marine pollutant : no

SECTION 15. REGULATORY INFORMATION

TSCA list : TSCA 5a - Not relevant

TSCA 12b - Not relevant

SARA 311/312 Hazards : Fire Hazard

Chronic Health Hazard Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting

requirements of SARA Title III, Section 302.

SARA 313 : The following components are subject to reporting levels

established by SARA Title III, Section 313:

2-butoxyethanol 111-76-2

Trade Secret Molybdenum

Compound

Trade Secret Vanadium

Compound

Massachusetts Right To Know

ethanol 64-17-5

Trade Secret Molybdenum Compound

Trade Secret Mica compound



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Trade Secret Vanadium Compound

2-butoxyethanol 111-76-2 ethyl acetate 141-78-6

Pennsylvania Right To Know

ethanol 64-17-5

Trade Secret Molybdenum Compound

Trade Secret Mica compound

Trade Secret Vanadium Compound

propane-1,2-diol 57-55-6
2-butoxyethanol 111-76-2
ethyl acetate 141-78-6

New Jersey Right To Know

ethanol 64-17-5

Trade Secret Molybdenum Compound

Trade Secret Mica compound

Trade Secret Vanadium Compound

propane-1,2-diol 57-55-6 2-butoxyethanol 111-76-2 ethyl acetate 141-78-6

California Prop 65 WARNING! This product contains a chemical known to the

State of California to cause cancer.

ethanol 64-17-5

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive

harm.

ethanol 64-17-5

The components of this product are reported in the following inventories:

REACH : This mixture contains only ingredients which have been

subject to a pre-registration according to Regulation (EC) No.

1907/2006 (REACH).

CH INV : Not in compliance with the inventory

: Trade Secret Mica compound

: Trade Secret cellulose compound

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL.

AICS : On the inventory, or in compliance with the inventory

NZIoC : On the inventory, or in compliance with the inventory

ENCS : Not in compliance with the inventory

: Trade Secret Mica compound



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: solvent naphtha (petroleum), light, aromatic

ISHL : Not in compliance with the inventory

: Trade Secret Mica compound

: solvent naphtha (petroleum), light, aromatic

KECI : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA), CH INV (Switzerland), MY INV (Malaysia), TR INV (Turkey), TW INV (Taiwan)

SECTION 16. OTHER INFORMATION

Revision Date : 10/13/2015

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.