



According to OSHA Hazard Communication Standard 29CFR 1910.1200 (HCS 2012)

 LA LMM-6000
 GSLA\_LMM-6000 Black Paste 250g

 Product specification
 RS\_FP\_603463
 Revision Date
 08/18/2020

 Version
 4.1
 Print Date
 02/28/2022

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### **SECTION 1. IDENTIFICATION**

Product name : LA LMM-6000

GSLA\_LMM-6000 Black Paste 250g

Material number : 1411218

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

**Emergency telephone number** 

In-Country Number : (800)424-9300

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

Acute toxicity (Oral) : Category 4

Eye irritation : Category 2A

Germ cell mutagenicity : Category 1B

Carcinogenicity : Category 1A

Specific target organ toxicity

- single exposure

: Category 1

Specific target organ toxicity

- single exposure

: Category 3 (Respiratory system)

**GHS Label element** 

Hazard pictograms





Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.



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		11000					
		H302		Harmful if swallow			
		H319		Causes serious e			
		H335		May cause respira			
		H340		May cause geneti			
		H350		May cause cance			
		H370		Causes damage t	o organs.		
Precautionary sta	tements	: Prevention:	:	01 (2)	te effect lefter		
		P201		Obtain special ins use.	tructions before		
		P202		Do not handle unt	il all safety		
				precautions have			
				understood.			
		P210		Keep away from h			
				flames/hot surface			
		P233		Keep container tig			
		P240		Ground/bond conf			
				receiving equipme			
		P241		Use explosion-pro	oof electrical/		
				ventilating/ lighting	g/ equipment.		
		P242		Use only non-spa	rking tools.		
		P243		Take precautional	ry measures		
				against static disc	harge.		
		P260		Do not breathe du	st/ fume/ gas/		
				mist/ vapours/ spr	ay.		
		P264		Wash skin thorough	ghly after handling.		
		P270		Do not eat, drink of	or smoke when		
				using this product			
		P271		Use only outdoors	or in a well-		
				ventilated area.			
		P280		Wear protective g	loves/ protective		
				clothing/ eye prote			
				protection.			
		Response:					
		P303 + P3	61 +	IF ON SKIN (or ha	air): Take off		
		P353		immediately all co			
				clothing. Rinse sk			
				water/shower.			
		P304 + P3	40 +	IF INHALED: Rem	nove person to		
		P312		fresh air and keep			
					POISON CENTER		
				or doctor/ physicia			
				unwell.	,		
		P305 + P3	51 +	IF IN EYES: Rinse	e cautiously with		
		P338		water for several r	•		
		. 000		contact lenses, if			
				to do. Continue rir			
		P307 + P3	11	IF exposed: Call a	•		
		1 001 +13	• •	CENTER or doctor			
		P337 + P3	13		rsists: Get medical		
		1 331 7 73	13	advice/ attention.	Sists. Oct medical		
		P370 + P3	70	In case of fire: Use	a dry cand dry		
		F310 + P3	10	iii case oi iiie. US	c ury sanu, ury		



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chemical or alcohol-resistant foam

to extinguish.

Storage:

P403 + P233 Store in a well-ventilated place.

Keep container tightly closed.

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
Molybdenum(VI) oxide	1313-27-5	>= 30 - < 50
mica	12001-26-2	>= 5 - < 10
ethyl acetate	141-78-6	>= 1 - < 5
ammonium metavanadate	7803-55-6	>= 1 - < 5
2-butoxyethanol	111-76-2	>= 1 - < 5
methanol	67-56-1	>= 1 - < 5
propane-1,2-diol	57-55-6	>= 1 - < 5
n-butyl acetate	123-86-4	>= 0.1 - < 1
4-methylpentan-2-one	108-10-1	>= 0.1 - < 1
quartz	14808-60-7	>= 0.1 - < 1
solvent naphtha (petroleum), light, aromatic	64742-95-6	>= 0.1 - < 1

# **SECTION 4. FIRST AID MEASURES**

In case of skin contact

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.

: 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.



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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 genetic defects.

May cause cancer.

Causes damage to organs.

#### **SECTION 5. FIREFIGHTING MEASURES**

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.

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

fire.

Burning produces irritant fumes.

Cool closed containers exposed to fire with water spray.

Hazardous combustion

products

: No hazardous combustion products are known

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 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 protection against

fire and explosion

: Keep away from heat and sources of ignition.

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

For personal protection see section 8.



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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.

# **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	ACGIH
		TWA	1,000 ppm	NIOSH REL
			1,900 mg/m3	
		TWA	1,000 ppm	OSHA Z-1
			1,900 mg/m3	
		TWA	1,000 ppm	OSHA P0
			1,900 mg/m3	
		STEL	1,000 ppm	ACGIH
Molybdenum(VI) oxide	1313-27-5	TWA	5 mg/m3	OSHA Z-1
			(Molybdenum)	
		TWA	0.5 mg/m3	ACGIH
		(Respirable	(Molybdenum)	
		fraction)		
		TWA	5 mg/m3	OSHA P0
			(Molybdenum)	
mica	12001-26-2	TWA	3 mg/m3	ACGIH
		(Respirable		
		fraction)		
		TWA (Dust)	20 Million	OSHA Z-3
			particles per cubic	
			foot	
		TWA	3 mg/m3	NIOSH REL
		(Respirable)		
		TWA	3 mg/m3	OSHA P0
		(respirable		
		dust fraction)		
ethyl acetate	141-78-6	TWA	400 ppm	ACGIH
		TWA	400 ppm	NIOSH REL
			1,400 mg/m3	
		TWA	400 ppm	OSHA Z-1
			1,400 mg/m3	
		TWA	400 ppm	OSHA P0
			1,400 mg/m3	
ammonium metavanadate	7803-55-6	C (Dust)	0.05 mg/m3	NIOSH REL
			(Vanadium)	
		C (Fumes)	0.05 mg/m3	NIOSH REL
			(Vanadium)	



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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
methanol	67-56-1	TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH
		TWA	200 ppm 260 mg/m3	NIOSH REL
		ST	250 ppm 325 mg/m3	NIOSH REL
		TWA	200 ppm 260 mg/m3	OSHA Z-1
		TWA	200 ppm 260 mg/m3	OSHA P0
		STEL	250 ppm 325 mg/m3	OSHA P0
propane-1,2-diol	57-55-6	TWA	10 mg/m3	US WEEL
4-methylpentan-2-one	108-10-1	TWA	20 ppm	ACGIH
<u> </u>		STEL	75 ppm	ACGIH
		TWA	50 ppm 205 mg/m3	NIOSH REL
		ST	75 ppm 300 mg/m3	NIOSH REL
		TWA	100 ppm 410 mg/m3	OSHA Z-1
		TWA	50 ppm 205 mg/m3	OSHA P0
		STEL	75 ppm 300 mg/m3	OSHA P0
quartz	14808-60-7	TWA (Respirable fraction)	0.025 mg/m3 (Silica)	ACGIH
		TWA (Respirable dust)	0.05 mg/m3 (Silica)	NIOSH REL
		TWA (Respirable dust)	0.05 mg/m3 (Silica)	OSHA CARC

# Hazardous components without workplace control parameters

Components	CAS-No.
n-butyl acetate	123-86-4
solvent naphtha (petroleum),	64742-95-6
light, aromatic	



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# **Biological occupational exposure limits**

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
methanol	67-56-1	Methanol	Urine	End of shift (As soon as possible after exposure ceases)	15 mg/l	ACGIH BEI
4-methylpentan-2-one	108-10-1	methyl isobutyl ketone	Urine	End of shift (As soon as possible after exposure ceases)	1 mg/l	ACGIH BEI
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.

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

pH : No data available Melting point/range : No data available

Flash point : 14 °C

Method: calculated

Evaporation rate : No data available

Burning rate : No data available

Upper explosion limit : 19 %(V)

Lower explosion limit : 1.1 %(V)

Vapour pressure : No data available Relative vapour density : No data available

Relative density : No data available

Density : No data available

Bulk density : No data available

Solubility(ies)

Water solubility : soluble

soluble

No data available

: Not determined: No data available

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

Auto-ignition temperature
Decomposition temperature

Viscosity

Viscosity, kinematic : No data available

Explosive properties : No data available
Oxidizing properties : Not applicable
Refractive index : No data available

Volatile organic compounds

(VOC) content

: 50 %

This product does not contain any VOC exemptions listed

under the U.S. Clean Air Act Section 450.

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR

60.489):

# **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Stable under recommended storage conditions.



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Chemical stability Possibility of hazardous

Incompatible materials

reactions

: No decomposition if stored and applied as directed.

Conditions to avoid

: Incompatible materials

Extremes of temperature and direct sunlight.

: Incompatible with oxidizing agents.

Incompatible with strong acids and bases.

: No decomposition if stored and applied as directed.

Hazardous decomposition

products

Stable under normal conditions.

#### **SECTION 11. TOXICOLOGICAL INFORMATION**

# Information on likely routes of exposure

inhalation (dust/mist/fume) inhalation (vapour)

Skin

Eye contact

### **Acute toxicity**

Not classified based on available information.

**Product:** 

Acute oral toxicity : Acute toxicity estimate: 2,605 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): 10,470 mg/kg

Acute dermal toxicity : LD50 (Rabbit): 15,800 mg/kg

Molybdenum(VI) oxide:

Acute oral toxicity : LD50 (Rat, male and female): 4,461 mg/kg

Method: OECD Test Guideline 401

GLP: yes

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

Exposure time: 4 h

Test atmosphere: dust/mist Method: OECD Test Guideline 403 Target Organs: Mucous membranes

GLP: ves

Assessment: The substance or mixture has no acute



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inhalation toxicity

Remarks: No adverse effect has been observed in acute

toxicity tests.

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg

Method: OECD Test Guideline 402

GLP: yes

Assessment: The substance or mixture has no acute dermal

toxicity

ethyl acetate:

Acute oral toxicity : LD50 Oral (Rat): 6,100 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 22.5 mg/l

Exposure time: 4 h
Test atmosphere: vapour

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

ammonium metavanadate:

Acute oral toxicity : LD50 (Rat, male and female): 275.87 mg/kg

Method: OECD Test Guideline 401

GLP: yes

2-butoxyethanol:

Acute oral toxicity : LD50 Oral (Rat, male and female): 1,200 mg/kg

Method: OECD Test Guideline 401

GLP: no

Acute dermal toxicity : LD50 Dermal (Rabbit, male and female): > 2,000 mg/kg

Method: OECD Test Guideline 402

GLP: yes

methanol:

Acute oral toxicity : LD50 Oral (Rat): 6,200 mg/kg

propane-1,2-diol:

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

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

n-butyl acetate:

Acute oral toxicity : LD50 Oral (Rat): 10,768 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 17,600 mg/kg

4-methylpentan-2-one:

Acute oral toxicity : LD50 Oral (Rat): 2,080 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 3,000 mg/kg

quartz:



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Acute oral toxicity : LD50 Oral (Rat): 500 mg/kg

Assessment: The substance or mixture has no acute oral

toxicity

solvent naphtha (petroleum), light, aromatic:

Acute oral toxicity : LD50 Oral (Rat, male and female): 8,400 mg/kg

Acute inhalation toxicity : LC50 (Rat): 8,000 - 10,000 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Method: OECD Test Guideline 403

GLP: yes

Acute dermal toxicity : LD50 Dermal (Rabbit, male and female): >= 2,000 mg/kg

Method: OECD Test Guideline 402

GLP: yes

#### Skin corrosion/irritation

Not classified based on available information.

#### Components:

### ethanol:

Species: Rabbit Exposure time: 24 h

Method: OECD Test Guideline 404

Result: No skin irritation

### Molybdenum(VI) oxide:

Species: Rabbit Exposure time: 4 h

Assessment: No skin irritation Method: OECD Test Guideline 404

Result: No skin irritation

GLP: yes

### 2-butoxyethanol:

Species: Rabbit Exposure time: 72 h

Method: OECD Test Guideline 404

Result: Irritating to skin.

GLP: yes

# solvent naphtha (petroleum), light, aromatic:

Species: Rabbit

Result: Mild skin irritation

### Serious eye damage/eye irritation

Causes serious eye irritation.

### **Components:**

ethanol:



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Species: Rabbit Result: Eye irritation

Method: OECD Test Guideline 405

# Molybdenum(VI) oxide:

Species: Rabbit

Result: Irritating to eyes. Assessment: Irritating to eyes.

# ethyl acetate: Species: Rabbit

Result: No eye irritation

#### ammonium metavanadate:

Species: Rabbit

Result: Irritating to eyes. Exposure time: 1 h

Method: OECD Test Guideline 405

GLP: yes

# 2-butoxyethanol:

Result: Eye irritation

### solvent naphtha (petroleum), light, aromatic:

Species: Rabbit

Result: Mild 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.

#### **Components:**

### solvent naphtha (petroleum), light, aromatic:

Germ cell mutagenicity - : Positive result(s) from in vivo mammalian somatic cell

Assessment mutagenicity tests.

#### Carcinogenicity

Not classified based on available information.

IARC Group 1: Carcinogenic to humans

quartz 14808-60-7

Group 2B: Possibly carcinogenic to humans

4-methylpentan-2-one 108-10-1

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

equal to 0.1% is identified as a carcinogen or potential



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carcinogen by OSHA.

**NTP** Known to be human carcinogen

> quartz 14808-60-7

### Reproductive toxicity

Not classified based on available information.

### STOT Specific Target Organ Toxicity - single exposure

May cause respiratory irritation.

#### Components:

### Molybdenum(VI) oxide:

Assessment: May cause respiratory irritation.

#### ammonium metavanadate:

Assessment: May cause respiratory irritation.

### solvent naphtha (petroleum), light, aromatic:

Assessment: May cause respiratory irritation.

# STOT Specific Target Organ Toxicity - repeated exposure

Not classified based on available information.

### **Aspiration toxicity**

Not classified based on available information.

#### **Components:**

# solvent naphtha (petroleum), light, aromatic:

May be fatal if swallowed and enters airways.

# **SECTION 12. ECOLOGICAL INFORMATION**

### **Ecotoxicity**

# **Product:**

**Ecotoxicology Assessment** 

Acute aquatic toxicity : No data available

Chronic aquatic toxicity : No data available

# Components:

#### ethanol:

aquatic invertebrates

Toxicity to daphnia and other : LC50 (Daphnia (water flea)): 9,268 mg/l

Exposure time: 48 h

### Molybdenum(VI) oxide:

Toxicity to fish (Oncorhynchus mykiss (rainbow trout)): 100 mg/l

Method: OECD Test Guideline 203



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Remarks: No toxicity at the limit of solubility

(Pimephales promelas (fathead minnow)): 370 mg/l

Exposure time: 96 h

Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other

aquatic invertebrates

(Daphnia magna (Water flea)): 100 mg/l

Exposure time: 24 h

Method: OECD Test Guideline 202

Remarks: No toxicity at the limit of solubility

(Daphnia magna (Water flea)): 100 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Remarks: No toxicity at the limit of solubility

ethyl acetate:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 220 mg/l

Exposure time: 96 h

Test Type: flow-through test

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

ammonium metavanadate:

Toxicity to fish : LC50 (Marine species): 27.8 mg/l

Exposure time: 96 h

Test Type: flow-through test

**Ecotoxicology Assessment** 

Acute aquatic toxicity

: This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

2-butoxyethanol:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 1,490 mg/l

Exposure time: 96 h Test Type: static test

Method: OECD Test Guideline 203

GLP: no

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 1,800 mg/l

Exposure time: 48 h

methanol:

Toxicity to fish : LC50 (Fish): 28,200 mg/l

Exposure time: 96 h

propane-1,2-diol:



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Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 51,400 mg/l

Exposure time: 96 h Test Type: static test

Method: OECD Test Guideline 203

GLP: yes

Toxicity to daphnia and other

aquatic invertebrates

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

Exposure time: 96 h

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

Exposure time: 96 h

n-butyl acetate:

Toxicity to fish : LC50 (Fish): 17 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia (water flea)): 72.8 mg/l

Exposure time: 24 h

Toxicity to algae : EC50 (algae): 674.7 mg/l

Exposure time: 72 h

4-methylpentan-2-one:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 496 - 514

mg/

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 170 mg/l

Exposure time: 48 h

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (algae)): 400 mg/l

Exposure time: 96 h

solvent naphtha (petroleum), light, aromatic:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 9.2 mg/l

Exposure time: 96 h
Test Type: semi-static test

Toxicity to daphnia and other

aquatic invertebrates

: EL50 (Daphnia magna (Water flea)): 12 mg/l

Exposure time: 48 h Test Type: static test

Toxicity to algae : EL50 (Pseudokirchneriella subcapitata (algae)): 1.1 mg/l

Exposure time: 72 h Test Type: static test

Persistence and degradability

**Product:** 

Biodegradability : Remarks: No data available



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**Components:** 

ethanol:

Biodegradability : Remarks: No data available

Molybdenum(VI) oxide:

Biodegradability : Remarks: No data available

mica:

Biodegradability : Remarks: No data available

ethyl acetate:

Biodegradability : Remarks: No data available

ammonium metavanadate:

Biodegradability : Remarks: No data available

2-butoxyethanol:

Biodegradability : Remarks: No data available

methanol:

Biodegradability : Remarks: No data available

propane-1,2-diol:

Biodegradability : Remarks: No data available

n-butyl acetate:

Biodegradability : Remarks: No data available

quartz:

Biodegradability : Remarks: No data available

solvent naphtha (petroleum), light, aromatic:

Biodegradability : Remarks: No data available

Bioaccumulative potential

**Product:** 

Bioaccumulation : Remarks: No data available

**Components:** 

ethanol:

Bioaccumulation : Remarks: No data available

Partition coefficient: n-

octanol/water

: log Pow: -0.349 (24 °C)

Molybdenum(VI) oxide:

Bioaccumulation : Remarks: No data available

mica:

Bioaccumulation : Remarks: No data available



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ethyl acetate:

Bioaccumulation : Remarks: No data available

Partition coefficient: n-

octanol/water

: log Pow: 0.73 (20 °C)

ammonium metavanadate:

Bioaccumulation : Remarks: No data available

2-butoxyethanol:

Bioaccumulation : Remarks: No data available

Partition coefficient: n-: log Pow: 0.77 (20 °C)

pH: 7 octanol/water

methanol:

Bioaccumulation : Remarks: No data available

Partition coefficient: n-: log Pow: -0.77

octanol/water propane-1,2-diol:

Bioaccumulation : Remarks: No data available

n-butyl acetate:

Bioaccumulation : Remarks: No data available

4-methylpentan-2-one:

Partition coefficient: n-: Pow: 1.19

octanol/water

quartz:

: Remarks: No data available Bioaccumulation

solvent naphtha (petroleum), light, aromatic:

Bioaccumulation : Remarks: No data available

Partition coefficient: n-

octanol/water

: log Pow: 3.42 - 3.9

Mobility in soil

**Product:** 

: Remarks: No data available Distribution among

environmental compartments

**Components:** 

ethanol:

Distribution among : Remarks: No data available

environmental compartments Molybdenum(VI) oxide:

environmental compartments

Distribution among : Remarks: No data available

mica:

Distribution among : Remarks: No data available



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environmental compartments

ethyl acetate:

Distribution among

environmental compartments

ammonium metavanadate:

Distribution among

environmental compartments

2-butoxyethanol: Distribution among

environmental compartments

methanol:

Distribution among

environmental compartments

propane-1,2-diol:

Distribution among

environmental compartments

n-butyl acetate:

Distribution among

environmental compartments

quartz:

Distribution among

environmental compartments

solvent naphtha (petroleum), light, aromatic:

Distribution among

environmental compartments

: Remarks: No data available

# Other adverse effects

#### **Product:**

Ozone-Depletion Potential Regulation: 40 CFR Protection of Environment; Part 82

Protection of Stratospheric Ozone - CAA Section 602 Class I

Substances

Remarks: This product neither contains, nor was

manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A +

B).

### **SECTION 13. DISPOSAL CONSIDERATIONS**

Disposal methods

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

#### **SECTION 14. TRANSPORT INFORMATION**

**IATA-DGR** 

: UN 1993 UN number

Proper shipping name Flammable liquid, n.o.s.

(ethanol, ethyl acetate)



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

aircraft)

Packing instruction : 353

(passenger aircraft)

Packing instruction (LQ) : Y341

**IMDG-Code** 

UN number : UN 1993

Proper shipping name : FLAMMABLE LIQUID, N.O.S.

(ethanol, ethyl acetate)

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** 

UN number : UN 1993

Proper shipping name : FLAMMABLE LIQUIDS, N.O.S.

(ethanol, ethyl acetate)

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

#### **SECTION 15. REGULATORY INFORMATION**

TSCA list : TSCA\_12b - Not relevant

TSCA list : TSCA 5a - Not relevant

# **EPCRA - Emergency Planning and Community Right-to-Know Act**

### **CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
ammonium metavanadate	7803-55-6	1000	*

<sup>\*:</sup> Calculated RQ exceeds reasonably attainable upper limit.

### SARA 304 Extremely Hazardous Substances Reportable Quantity



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This material does not contain any components with a section 304 EHS RQ.

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 : This product contains components that are reportable under

the regulation.

This product contains components that are reportable under

the regulation.

Methanol

Molybdenum trioxide

Vanadium compounds

Certain Glycol Ethers

# Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product contains components that are reportable under the regulation.

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product contains components that are reportable under the regulation.

#### **Clean Water Act**

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product contains components that are reportable under the regulation.

This product contains components that are reportable under the regulation.

# Massachusetts Right To Know

This product contains components that are reportable under

the regulation.

Pennsylvania Right To Know

This product contains components that are reportable under

the regulation.

**New Jersey Right To Know** 

This product contains components that are reportable under

the regulation.

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

State of California to cause cancer.

WARNING: This product contains a chemical known to the



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State of California to cause birth defects or other reproductive harm.

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

EINECS (European Union) : On the inventory, or in compliance with the inventory

SWISS (Switzerland) : On the inventory, or in compliance with the inventory

TSCA (United States) : On TSCA Inventory

DSL/NDSL (Canada) : This product contains one or several components listed in the

Canadian NDSL.

AICS (Australia) : On the inventory, or in compliance with the inventory

NZioC (New Zealand) : On the inventory, or in compliance with the inventory

ENCS (Japan) : On the inventory, or in compliance with the inventory

ISHL (Japan) : Not in compliance with the inventory

KECI (Korea) : On the inventory, or in compliance with the inventory

PICCS (Philippines) : Not in compliance with the inventory

IECSC (China) : On the inventory, or in compliance with the inventory

TCSI (Taiwan) : On the inventory, or in compliance with the inventory

CICR (Turkey) : Not in compliance with the inventory

INSQ (Mexico) : Not in compliance with the inventory

#### **SECTION 16. OTHER INFORMATION**

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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.

US / EN

