Product specification
 RS\_FP\_603544
 Revision Date
 14.03.2023

 Version
 2.0
 Print Date
 05.05.2023

 Material number
 1130062
 Page
 Page 1 of 25

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product code : 1130062

Trade name : LA LMM-6000SPRAY

GSLA\_LMM-6000 Black Aerosol Spray Can

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Sub- : Decorative coating

stance/Mixture

1.3 Details of the supplier of the safety data sheet

Company : Vibrantz Corporation

6060 Parkland Blvd. Suite 250 44124-4185 Mayfield Heights

Telephone : +12168755600

Telefax

E-mail address Responsi-

ble/issuing person

: SDSNA@vibrantz.com

1.4 Emergency telephone number

In-Country Number : 0-800-983-611

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

#### **SECTION 2: Hazards identification**

# 2.1 Classification of the substance or mixture

# Classification (REGULATION (EC) No 1272/2008)

Aerosols, Category 1 H222: Extremely flammable aerosol.

H229: Pressurised container: May burst if heated.

Eye irritation, Category 2

Carcinogenicity, Category 2

Specific target organ toxicity - single ex
H319: Causes serious eye irritation.

H351: Suspected of causing cancer.

H335: May cause respiratory irritation.

posure, Category 3, Respiratory system

2.2 Label elements

# Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :





Signal word : Danger

Product specificationRS\_FP\_603544Revision Date14.03.2023Version2.0Print Date05.05.2023Material number1130062PagePage 2 of 25

Hazard statements : H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.

H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.

Precautionary statements : Prevention:

P201 Obtain special instructions before use.

P210 Keep away from heat, hot surfaces, sparks, open

flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P280 Wear protective gloves/ protective clothing/ eye protec-

tion/ face protection/ hearing protection.

Storage:

P410 + P412 Protect from sunlight. Do not expose to tem-

peratures exceeding 50 °C/ 122 °F.

Hazardous components which must be listed on the label:

Molybdenum(VI) oxide ammonium metavanadate

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### **SECTION 3: Composition/information on ingredients**

#### 3.2 Mixtures

Chemical nature : inorganic metal-nonmetal compound

organic solvent

extremely flammable liquefied gas

silicatic material hydrocarbon, aliphatic

inorganic salt

# Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
ethanol	64-17-5 200-578-6 603-002-00-5 01-2119457610-43- xxxx	Flam. Liq. 2; H225 Eye Irrit. 2; H319	>= 30 - < 50
Molybdenum(VI) oxide	1313-27-5 215-204-7 042-001-00-9	Eye Irrit. 2; H319 Carc. 2; H351 STOT SE 3; H335	>= 20 - < 30

LA LMM-6000SPRAYGSLA\_LMM-6000 Black Aerosol Spray CanProduct specificationRS\_FP\_603544Revision Date14.03.2023Version2.0Print Date05.05.2023Material number1130062PagePage 3 of 25

	01-2119488038-30- xxxx	(Respiratory system)	
ammonium metavanadate	7803-55-6 232-261-3	Acute Tox. 3; H301 Acute Tox. 4; H332 Eye Irrit. 2; H319 STOT SE 3; H335 (Respiratory system)	>= 0.1 - < 10
ethyl acetate	141-78-6 205-500-4 607-022-00-5 01-2119475103-46- xxxx	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 (Central nervous system)	>= 0.1 - < 10
methanol	67-56-1 200-659-6 603-001-00-X 01-2119392409-28- xxxx	Flam. Liq. 2; H225 Acute Tox. 3; H301 Acute Tox. 3; H331 Acute Tox. 3; H311 STOT SE 1; H370	>= 1 - < 3
2-butoxyethanol	111-76-2 203-905-0 603-014-00-0 01-2119475108-36- xxxx	Acute Tox. 4; H302 Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319	>= 0.1 - < 10
4-methylpentan-2-one	108-10-1 203-550-1 606-004-00-4	Flam. Liq. 2; H225 Acute Tox. 4; H332 Eye Irrit. 2; H319 Carc. 2; H351 STOT SE 3; H336 (Central nervous system)	>= 0.1 - < 1
Substances with a workplace exposur	e limit :	10,000,	L
butane	106-97-8 203-448-7 601-004-00-0 01-2119474691-32- xxxx	Flam. Gas 1; H220 Press. Gas Liquefied gas; H280	>= 10 - < 20
mica	12001-26-2 310-127-6		>= 0.1 - < 10
Molybdenum(VI) oxide	1313-27-5 215-204-7 042-001-00-9 01-2119488038-30- xxxx	Eye Irrit. 2; H319 Carc. 2; H351 STOT SE 3; H335 (Respiratory system)	>= 20 - < 30
isobutane	75-28-5 200-857-2 601-004-00-0 01-2119485395-27- xxxx	Flam. Gas 1; H220 Press. Gas Liquefied gas; H280	>= 1 - < 10
propane	74-98-6 200-827-9 601-003-00-5 01-2119486944-21-	Flam. Gas 1; H220 Press. Gas Liquefied gas; H280	>= 1 - < 10

LA LMM-6000SPRAYGSLA\_LMM-6000 Black Aerosol Spray CanProduct specificationRS\_FP\_603544Revision Date14.03.2023Version2.0Print Date05.05.2023Material number1130062PagePage 4 of 25

	xxxx		
ammonium metavanadate	7803-55-6 232-261-3	Acute Tox. 3; H301 Acute Tox. 4; H332 Eye Irrit. 2; H319 STOT SE 3; H335 (Respiratory sys-	>= 1 - < 3
		tem)	
ethyl acetate	141-78-6 205-500-4 607-022-00-5 01-2119475103-46- xxxx	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 (Central nervous system)	>= 1 - < 3
methanol	67-56-1 200-659-6 603-001-00-X 01-2119392409-28- xxxx	Flam. Liq. 2; H225 Acute Tox. 3; H301 Acute Tox. 3; H331 Acute Tox. 3; H311 STOT SE 1; H370	>= 1 - < 3
2-butoxyethanol	111-76-2 203-905-0 603-014-00-0 01-2119475108-36- xxxx	Acute Tox. 4; H302 Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319	>= 1 - < 3
Substances with a workplace exposu	ıre limit :		
ethanol	64-17-5 200-578-6 603-002-00-5 01-2119457610-43- xxxx	Flam. Liq. 2; H225 Eye Irrit. 2; H319	>= 30 - < 50
butane	106-97-8 203-448-7 601-004-00-0 01-2119474691-32- xxxx	Flam. Gas 1; H220 Press. Gas Liquefied gas; H280	>= 10 - < 20
mica	12001-26-2 310-127-6		>= 1 - < 10

For explanation of abbreviations see section 16.

# **SECTION 4: First aid measures**

# 4.1 Description of first aid measures

General advice : Do not leave the victim unattended.

Move out of dangerous area.

Show this safety data sheet to the doctor in attendance.

If inhaled : If unconscious, place in recovery position and seek medical

advice.

Keep respiratory tract clear.

Product specification RS\_FP\_603544 Revision Date 14.03.2023 Version Print Date 05.05.2023 20 1130062 Material number Page Page 5 of 25

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

> removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

In case of eye contact Immediately flush eye(s) with plenty of water.

> Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

If swallowed Rinse mouth immediately with plenty of water and seek medi-

cal advice.

Keep respiratory tract clear. Do NOT induce vomiting.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician. Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

Risks Causes serious eye irritation.

May cause respiratory irritation. Suspected of causing cancer.

4.3 Indication of any immediate medical attention and special treatment needed

**Treatment** : Treat symptomatically.

# **SECTION 5: Firefighting measures**

## 5.1 Extinguishing media

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

cumstances and the surrounding environment.

Alcohol-resistant foam Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

High volume water jet

# 5.2 Special hazards arising from the substance or mixture

ucts

Hazardous combustion prod- : No hazardous combustion products are known

#### 5.3 Advice for firefighters

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

for firefighters

Further information Use a water spray to cool fully closed containers.

Product specificationRS\_FP\_603544Revision Date14.03.2023Version2.0Print Date05.05.2023Material number1130062PagePage 6 of 25

For safety reasons in case of fire, cans should be stored sepa-

rately in closed containments.

#### **SECTION 6: Accidental release measures**

#### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Beware of vapours accumulating to form explosive concentra-

tions. Vapours can accumulate in low areas.

Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

### 6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Clean contaminated floors and objects thoroughly while ob-

serving environmental regulations.

#### 6.4 Reference to other sections

For personal protection see section 8.

### **SECTION 7: Handling and storage**

#### 7.1 Precautions for safe handling

Advice on safe handling : Avoid release to the environment.

Do not breathe vapours/dust.

For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the ap-

plication area.

Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national

regulations.

Advice on protection against

fire and explosion

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition. Do not spray on a naked

flame or any incandescent material.

Hygiene measures : Wash hands before breaks and at the end of workday.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force

LA LMM-6000SPRAY		GSLA_LMM-6000 B	GSLA_LMM-6000 Black Aerosol Spray Can		
Product specification	RS_FP_603544	Revision Date	14.03.2023		
Version	2.0	Print Date	05.05.2023		
Material number	1130062	Page	Page 7 of 25		

or throw into fire even after use. Do not spray on flames or red-hot objects. No smoking. Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with

the technological safety standards.

Further information on stor-

age stability

No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) Consult the technical guidelines for the use of this sub-

stance/mixture.

# **SECTION 8: Exposure controls/personal protection**

# 8.1 Control parameters

# **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis		
ethanol	64-17-5	OEL- RL STEL/C	2,000 ppm	ZA OEL		
	Further inform	Further information: Occupational Exposure Limits - Restricted Limits For				
	Hazardous Cl	nemical Agents				
Molybdenum(VI)	1313-27-5	OEL-RL (respira-	1 mg/m3	ZA OEL		
oxide	E 41	ble dust fraction)	(Molybdenum)	11		
		nation: Occupational nemical Agents	Exposure Limits - Restricted	Limits For		
butane	106-97-8	OEL- RL STEL/C	2,000 ppm	ZA OEL		
		nation: Occupational nemical Agents	Exposure Limits - Restricted	Limits For		
mica	12001-26-2	OEL-RL (respira- ble dust fraction)	6 mg/m3	ZA OEL		
		nation: Occupational nemical Agents	Exposure Limits - Restricted	Limits For		
ethyl acetate	141-78-6	TWA	200 ppm 734 mg/m3	2017/164/EU		
	Further inform	nation: Indicative				
		STEL	400 ppm 1,468 mg/m3	2017/164/EU		
	Further inform	nation: Indicative				
		OEL-RL	800 ppm	ZA OEL		
		nation: Occupational nemical Agents	Exposure Limits - Restricted	Limits For		
		TWA	200 ppm 734 mg/m3	2017/164/EU		
		STEL	400 ppm 1,468 mg/m3	2017/164/EU		
methanol	67-56-1	TWA	200 ppm 260 mg/m3	2006/15/EC		
	Further information: Indicative, Identifies the possibility of significant uptake through the skin					

LA LMM-6000SPRAY		GSLA_LMM-6000 B	GSLA_LMM-6000 Black Aerosol Spray Can		
Product specification	RS_FP_603544	Revision Date	14.03.2023		
Version	2.0	Print Date	05.05.2023		
Material number	1130062	Page	Page 8 of 25		

	1	OEL-RL	400 ppm	ZA OEL			
	Further inform		aneous absorption, Occupa				
		Limits - Restricted Limits For Hazardous Chemical Agents					
		OEL- RL STEL/C	500 ppm	ZA OEL			
	Further information: danger of cutaneous absorption, Occupational Exposure						
	Limits - Restricted Limits For Hazardous Chemical Agents						
		TWA	200 ppm	2006/15/EC			
0   1   1   1   1   1	444.70.0	T) A / A	260 mg/m3	0000/00/50			
2-butoxyethanol	111-76-2	TWA	20 ppm 98 mg/m3	2000/39/EC			
	Further inform	nation: Identifies the	possibility of significant upta	lke through the			
	skin, Indicativ		possismity of organical it apie	ato anough ano			
		STEL	50 ppm	2000/39/EC			
			246 mg/m3				
			possibility of significant upta	ke through the			
	skin, Indicativ		<b>,</b>				
		OEL- ML	40 ppm	ZA OEL			
			Exposure Limits - Maximum	n Limits For			
	Hazardous Cl	hemical Agents	I 00	0000/00/50			
		TWA	20 ppm	2000/39/EC			
		STEL	98 mg/m3 50 ppm	2000/39/EC			
		SIEL	246 mg/m3	2000/39/EC			
4-methylpentan-2-	108-10-1	TWA	20 ppm	2000/39/EC			
one	100 10 1		83 mg/m3	2000/03/20			
	Further inform	nation: Indicative	,				
		STEL	50 ppm	2000/39/EC			
			208 mg/m3				
	Further inform	nation: Indicative					
		OEL-RL	40 ppm	ZA OEL			
			aneous absorption, Occupa				
			ardous Chemical Agents, de				
	genicity, whic	h is based on GHS o	categorisation, including cate				
	F 11	OEL- RL STEL/C		ZA OEL			
			aneous absorption, Occupa				
			ardous Chemical Agents, de categorisation, including cate				
	gernoity, write	TWA	20 ppm	2000/39/EC			
		. **/ `	83 mg/m3	2000/00/20			
		STEL	50 ppm	2000/39/EC			
			208 mg/m3				
ethanol	64-17-5	OEL- RL STEL/C	2,000 ppm	ZA OEL			
			Exposure Limits - Restricte	d Limits For			
		hemical Agents	T				
butane	106-97-8	OEL- RL STEL/C	2,000 ppm	ZA OEL			
		nation: Occupational hemical Agents	Exposure Limits - Restricte	d Limits For			
mica	12001-26-2	OEL-RL (respira-	6 mg/m3	ZA OEL			
		ble dust fraction)	- · · · · · · · · · · · ·				
Further information: Occupational Exposure Limits - Restricted Limits For							
Hazardous Chemical Agents							

LA LMM-6000SPRAY		GSLA_LMM-6000 BI	GSLA_LMM-6000 Black Aerosol Spray Can		
Product specification	RS_FP_603544	Revision Date	14.03.2023		
Version	2.0	Print Date	05.05.2023		
Material number	1130062	Page	Page 9 of 25		

ethyl acetate	141-78-6	TWA	200 ppm 734 mg/m3	2017/164/EU		
	Further infor	mation: Indicative	<u> </u>	•		
		STEL	400 ppm 1,468 mg/m3	2017/164/EU		
	Further infor	mation: Indicative				
		OEL-RL	800 ppm	ZA OEL		
		mation: Occupationa Chemical Agents	al Exposure Limits - Restric	cted Limits For		
		TWA	200 ppm 734 mg/m3	2017/164/EU		
		STEL	400 ppm 1,468 mg/m3	2017/164/EU		
methanol	67-56-1	TWA	200 ppm 260 mg/m3	2006/15/EC		
	Further infor through the		dentifies the possibility of s	ignificant uptake		
		OEL-RL	400 ppm	ZA OEL		
		Further information: danger of cutaneous absorption, Occupational Exposure Limits - Restricted Limits For Hazardous Chemical Agents				
		OEL- RL STEL/C		ZA OEL		
		Further information: danger of cutaneous absorption, Occupational Exposul Limits - Restricted Limits For Hazardous Chemical Agents				
		TWA	200 ppm 260 mg/m3	2006/15/EC		
2-butoxyethanol	111-76-2	TWA	20 ppm 98 mg/m3	2000/39/EC		
	Further infor skin, Indicati		e possibility of significant u	ptake through the		
		STEL	50 ppm 246 mg/m3	2000/39/EC		
	Further infor skin, Indicati	ve	e possibility of significant u	ptake through the		
		OEL- ML	40 ppm	ZA OEL		
		mation: Occupationa Chemical Agents	al Exposure Limits - Maxim	num Limits For		
		TWA	20 ppm 98 mg/m3	2000/39/EC		
		STEL	50 ppm 246 mg/m3	2000/39/EC		

# **Biological occupational exposure limits**

Substance name	CAS-No.	Control parameters	Sampling time	Basis
methanol	67-56-1	Methanol: 15 mg/l (Urine)	End of shift	ZA BEI
2-butoxyethanol	111-76-2	Butoxyacetic acid (BAA): 200 mg/g Creatinine (Urine)	End of shift	ZA BEI
4-methylpentan-2-one	108-10-1	Methyl isobutyl ketone (MIBK): 1 mg/l	End of shift	ZA BEI

Product specificationRS\_FP\_603544Revision Date14.03.2023Version2.0Print Date05.05.2023Material number1130062PagePage 10 of 25

		(Urine)		
methanol	67-56-1	Methanol: 15 mg/l	End of shift	ZA BEI
		(Urine)		

### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
ethanol	Workers	Inhalation	Long-term systemic effects	950 mg/m3
	Workers	Dermal	Long-term systemic effects	343 mg/kg bw/day
2-butoxyethanol	Workers	Inhalation	Long-term systemic effects	98 mg/m3
	Workers	Inhalation	Acute systemic effects	1091 mg/m3
	Workers	Dermal	Long-term systemic effects	125 mg/kg bw/day
	Workers	Dermal	Acute systemic effects	89 mg/kg bw/day

# Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
ethanol	Fresh water	0.96 mg/l
	Marine water	0.79 mg/l
	Fresh water sediment	3.6 mg/kg dry
		weight (d.w.)
	Marine sediment	2.9 mg/kg dry
		weight (d.w.)
	Soil	0.63 mg/kg dry
		weight (d.w.)
	Sewage treatment plant	580 mg/l
2-butoxyethanol	Fresh water	8.8 mg/l
	Marine water	0.88 mg/l
	Sewage treatment plant	463 mg/l
	Fresh water sediment	34.6 mg/kg dry
		weight (d.w.)
	Marine sediment	3.46 mg/kg dry
		weight (d.w.)
	Soil	2.33 mg/kg dry
		weight (d.w.)

# 8.2 Exposure controls

#### **Engineering measures**

Handle only in a place equipped with local exhaust (or other appropriate exhaust).

# Personal protective equipment

Eye protection : Ensure that eyewash stations and safety showers are close to

the workstation location.

Tightly fitting safety goggles

Hand protection : Wear protective gloves, for example: polyvinyl alcohol or ni-

trile-butyl-rubber gloves, or similar; Glove thickness: > 0.4 mm and Break Through time: > 480 minutes. The suitability for a

LA LMM-6000SPRAY GSLA\_LMM-6000 Black Aerosol Spray Can

Product specificationRS\_FP\_603544Revision Date14.03.2023Version2.0Print Date05.05.2023Material number1130062PagePage 11 of 25

specific workplace should be discussed with the producers of the protective gloves. Before removing gloves clean them with

soap and water.

Skin and body protection : Impervious clothing

Respiratory protection : Use respiratory protection unless adequate local exhaust ven-

tilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Equipment should conform to EN 143

Filter type : Particulates type (P)

Protective measures : Wear suitable protective equipment.

# **SECTION 9: Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties

Physical state : aerosol Colour : black

Odour : characteristic
Odour Threshold : No data available

Melting point/range : No data available

Boiling point/boiling range : No data available

Flammability : No data available

Upper explosion limit / Upper

flammability limit

19 %(V)

Lower explosion limit / Lower

flammability limit

1.1 %(V)

Flash point : 14 °C

Auto-ignition temperature : not determined

Decomposition temperature : No data available

pH : No data available

Viscosity

Viscosity, kinematic : No data available

Solubility(ies)

Water solubility : soluble

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

: No data available

Vapour pressure

: No data available

LA LMM-6000SPRAY GSLA\_LMM-6000 Black Aerosol Spray Can

 Product specification
 RS\_FP\_603544
 Revision Date
 14.03.2023

 Version
 2.0
 Print Date
 05.05.2023

 Material number
 1130062
 Page
 Page 12 of 25

Relative density : No data available

Bulk density : No data available

Relative vapour density : No data available

9.2 Other information

Explosives : No data available

Oxidizing properties : No data available

Flammable solids

Burning rate : No data available

Self-ignition : No data available

Evaporation rate : No data available

Refractive index : No data available

# **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

No decomposition if stored and applied as directed.

### 10.2 Chemical stability

Stable under normal conditions.

# 10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Not applicable

# 10.6 Hazardous decomposition products

Stable under normal conditions.

# **SECTION 11: Toxicological information**

### 11.1 Information on toxicological effects

# **Acute toxicity**

Not classified based on available information.

 Product specification
 RS\_FP\_603544
 Revision Date
 14.03.2023

 Version
 2.0
 Print Date
 05.05.2023

 Material number
 1130062
 Page
 Page 13 of 25

**Product:** 

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg

Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg

Method: Calculation method

**Components:** 

ethanol:

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

ammonium metavanadate:

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

Method: OECD Test Guideline 401

GLP: yes

Remarks: Toxic if swallowed.

Acute toxicity estimate: 275.87 mg/kg

Method: Calculation method

ethyl acetate:

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

Assessment: The substance or mixture has no acute oral tox-

icity

methanol:

Acute dermal toxicity : Acute toxicity estimate: 300 mg/kg

Method: Converted acute toxicity point estimate

2-butoxyethanol:

Acute oral toxicity : Acute toxicity estimate: 1,200 mg/kg

Method: Acute toxicity estimate according to Regulation (EC)

No. 1272/2008

LD50 Oral (Rat, male and female): 1,746 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

4-methylpentan-2-one:

 Product specification
 RS\_FP\_603544
 Revision Date
 14.03.2023

 Version
 2.0
 Print Date
 05.05.2023

 Material number
 1130062
 Page
 Page 14 of 25

Acute inhalation toxicity : Acute toxicity estimate: 11 mg/l

Test atmosphere: vapour

Method: Acute toxicity estimate according to Regulation (EC)

No. 1272/2008

butane:

Acute inhalation toxicity : LC50 (Rat, male and female): 658 g/m3

Exposure time: 4 h Test atmosphere: gas

Assessment: The substance or mixture has no acute inhala-

tion toxicity

ammonium metavanadate:

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

Method: OECD Test Guideline 401

GLP: yes

Remarks: Toxic if swallowed.

Acute toxicity estimate: 275.87 mg/kg

Method: Calculation method

ethyl acetate:

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

Assessment: The substance or mixture has no acute oral tox-

icity

methanol:

Acute dermal toxicity : Acute toxicity estimate: 300 mg/kg

Method: Converted acute toxicity point estimate

2-butoxyethanol:

Acute oral toxicity : Acute toxicity estimate: 1,200 mg/kg

Method: Acute toxicity estimate according to Regulation (EC)

No. 1272/2008

LD50 Oral (Rat, male and female): 1,746 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

ethanol:

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

butane:

Acute inhalation toxicity : LC50 (Rat, male and female): 658 g/m3

 Product specification
 RS\_FP\_603544
 Revision Date
 14.03.2023

 Version
 2.0
 Print Date
 05.05.2023

 Material number
 1130062
 Page
 Page 15 of 25

Exposure time: 4 h Test atmosphere: gas

Assessment: The substance or mixture has no acute inhala-

tion toxicity

#### 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

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

ethanol:

Species : Rabbit Exposure time : 24 h

Product specificationRS\_FP\_603544Revision Date14.03.2023Version2.0Print Date05.05.2023Material number1130062PagePage 16 of 25

Method : OECD Test Guideline 404

Result : No skin irritation

## Serious eye damage/eye irritation

Causes serious eye irritation.

### **Components:**

#### ethanol:

Species : Rabbit

Method : OECD Test Guideline 405

Result : Eye irritation

# Molybdenum(VI) oxide:

Species : Rabbit

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

### ammonium metavanadate:

Species : Rabbit Exposure time : 1 h

Method : OECD Test Guideline 405

Result : Irritating to eyes.

GLP : yes

# ethyl acetate:

Species : Rabbit

Result : No eye irritation

### 2-butoxyethanol:

Result : Eye irritation

# Molybdenum(VI) oxide:

Species : Rabbit

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

# ammonium metavanadate:

Species : Rabbit Exposure time : 1 h

Method : OECD Test Guideline 405

Result : Irritating to eyes.

GLP : yes

#### ethyl acetate:

Species : Rabbit

Result : No eye irritation

LA LMM-6000SPRAY GSLA\_LMM-6000 Black Aerosol Spray Can

 Product specification
 RS\_FP\_603544
 Revision Date
 14.03.2023

 Version
 2.0
 Print Date
 05.05.2023

 Material number
 1130062
 Page
 Page 17 of 25

2-butoxyethanol:

Result : Eye irritation

ethanol:

Species : Rabbit

Method : OECD Test Guideline 405

Result : 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

Not classified based on available information.

### Carcinogenicity

Suspected of causing cancer.

#### Reproductive toxicity

Not classified based on available information.

### STOT - single exposure

May cause respiratory irritation.

#### Components:

#### ammonium metavanadate:

Assessment : May cause respiratory irritation.

# ammonium metavanadate:

Assessment : May cause respiratory irritation.

# STOT - repeated exposure

Not classified based on available information.

# **Aspiration toxicity**

Not classified based on available information.

# **SECTION 12: Ecological information**

# 12.1 Toxicity

# **Components:**

#### ethanol:

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

 Product specification
 RS\_FP\_603544
 Revision Date
 14.03.2023

 Version
 2.0
 Print Date
 05.05.2023

 Material number
 1130062
 Page
 Page 18 of 25

aquatic invertebrates Exposure time: 48 h

Molybdenum(VI) oxide:

Toxicity to fish : (Pimephales promelas (fathead minnow)): 370 mg/l

Exposure time: 96 h

Remarks: No toxicity at the limit of solubility

ammonium metavanadate:

**Ecotoxicology Assessment** 

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

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

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/aquatic

plants

EC50 (algae): 3,300 mg/l Exposure time: 48 h

methanol:

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

Exposure time: 96 h

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

Molybdenum(VI) oxide:

Toxicity to fish : (Pimephales promelas (fathead minnow)): 370 mg/l

Exposure time: 96 h

Remarks: No toxicity at the limit of solubility

ammonium metavanadate:

**Ecotoxicology Assessment** 

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

Product specification RS\_FP\_603544 **Revision Date** 14.03.2023 Version 2.0 Print Date 05.05.2023 1130062 Page Material number Page 19 of 25

Chronic aquatic toxicity This product has no known ecotoxicological effects.

ethyl acetate:

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

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/aquatic

plants

EC50 (algae): 3,300 mg/l Exposure time: 48 h

methanol:

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

Exposure time: 96 h

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

ethanol:

aquatic invertebrates

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

Exposure time: 48 h

#### 12.2 Persistence and degradability

No data available

#### 12.3 Bioaccumulative potential

### **Components:**

ethanol:

Partition coefficient: n-

log Pow: -0.349 (24 °C)

octanol/water

ethyl acetate:

Partition coefficient: n-

log Pow: 0.73 (20 °C)

octanol/water

methanol:

Partition coefficient: n-

octanol/water

log Pow: -0.77

 Product specification
 RS\_FP\_603544
 Revision Date
 14.03.2023

 Version
 2.0
 Print Date
 05.05.2023

 Material number
 1130062
 Page
 Page 20 of 25

2-butoxyethanol:

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

octanol/water pH: 7

4-methylpentan-2-one:

Partition coefficient: n- : Pow: 1.19

octanol/water

butane:

Partition coefficient: n-

octanol/water

: log Pow: 2.745

ethyl acetate:

Partition coefficient: n-

octanol/water

log Pow: 0.73 (20 °C)

methanol:

Partition coefficient: n-

octanol/water

log Pow: -0.77

2-butoxyethanol:

Partition coefficient: n-

octanol/water

log Pow: 0.77 (20 °C)

pH: 7

ethanol:

Partition coefficient: n-

octanol/water

log Pow: -0.349 (24 °C)

butane:

Partition coefficient: n-

octanol/water

log Pow: 2.745

#### 12.4 Mobility in soil

No data available

#### 12.5 Results of PBT and vPvB assessment

### **Product:**

Assessment : This substance/mixture contains no components considered

to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher.

### 12.6 Other adverse effects

**Product:** 

Endocrine disrupting poten-

tial

: The substance/mixture does not contain components consid-

ered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

Additional ecological infor-

mation

None known.

Product specificationRS\_FP\_603544Revision Date14.03.2023Version2.0Print Date05.05.2023Material number1130062PagePage 21 of 25

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

Product : Send to a licensed waste management company.

Dispose of wastes in an approved waste disposal facility.

Do not dispose of waste into sewer.

Do not contaminate ponds, waterways or ditches with chemi-

cal or used container.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product.

Empty containers should be taken to an approved waste han-

dling site for recycling or disposal. Do not re-use empty containers.

Do not burn, or use a cutting torch on, the empty drum.

# **SECTION 14: Transport information**

#### 14.1 UN number

 ADR
 : UN 1950

 IMDG
 : UN 1950

 IATA
 : UN 1950

14.2 UN proper shipping name

ADR : AEROSOLS, FLAMMABLE, AEROSOLS

IMDG : AEROSOLS

IATA : Aerosols, flammable

14.3 Transport hazard class(es)

 ADR
 : 2

 IMDG
 : 2.1

 IATA
 : 2.1

#### 14.4 Packing group

**ADR** 

Packing group : Not assigned by regulation

Classification Code : 5F Labels : 2.1 Tunnel restriction code : (D)

**IMDG** 

Packing group : Not assigned by regulation

Labels : 2.1 EmS Code : F-D, S-U

Product specification RS\_FP\_603544 **Revision Date** 14.03.2023 Version Print Date 05.05.2023 20 1130062 Page Page 22 of 25 Material number

IATA (Cargo)

Packing instruction (cargo 203

aircraft)

Packing instruction (LQ) : Y203

Packing group Not assigned by regulation

Labels Flammable Gas

IATA (Passenger)

Packing instruction (passen-203

ger aircraft)

Packing instruction (LQ) Y203

Packing group Not assigned by regulation

Labels Flammable Gas

14.5 Environmental hazards

ADR

Environmentally hazardous no

**IMDG** 

Marine pollutant no

#### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

#### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

#### **SECTION 15: Regulatory information**

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)

lowing entries should be considered: methanol (Number on list 69)

International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH),

Neither banned nor restricted

Conditions of restriction for the fol-

Article 57).

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer

Neither banned nor restricted

Regulation (EU) 2019/1021 on persistent organic pollutants (recast)

Neither banned nor restricted

Regulation (EC) No 649/2012 of the European Parlia-

Not applicable

ment and the Council concerning the export and import of dangerous chemicals

: Neither banned nor restricted

REACH - List of substances subject to authorisation

(Annex XIV)

LA LMM-6000SPRAY		GSLA_LMM-6000 B	GSLA_LMM-6000 Black Aerosol Spray Can		
Product specification	RS_FP_603544	Revision Date	14.03.2023		
Version	2.0	Print Date	05.05.2023		
Material number	1130062	Page	Page 23 of 25		

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

P3a FLAMMABLE AEROSOLS

18 Liquefied extremely flammable gases (including LPG) and natu-

ral gas

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial

emissions (integrated pollution prevention and control)

Not applicable

### Other regulations:

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

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

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

TSCA (United States) : All substances listed as active on the TSCA inventory

AllC (Australia) : All components are listed on the inventory, regulatory obliga-

tions/restrictions apply

DSL/NDSL (Canada) : All components of this product are on the Canadian DSL

ENCS (Japan) : Not in compliance with the inventory

ISHL (Japan) : Not in compliance with the inventory

PICCS (Philippines) : On the inventory, or in compliance with the inventory

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

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

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

CICR (Turkey) : Not in compliance with the inventory

TECI (Thailand) : On the inventory, or in compliance with the inventory

### 15.2 Chemical safety assessment

Not applicable

Material number

LA LMM-6000SPRAY		GSLA_LMM-6000 B	lack Aerosol Spray Can
Product specification	RS_FP_603544	Revision Date	14.03.2023
Version	2.0	Print Date	05.05.2023

Page

Page 24 of 25

#### **SECTION 16: Other information**

#### **Full text of H-Statements**

H220 : Extremely flammable gas.

1130062

H225 : Highly flammable liquid and vapour.

H280 : Contains gas under pressure; may explode if heated.

H301
H302
H311
Toxic if swallowed.
Toxic in contact with skin.
H315
Causes skin irritation.
H319
Causes serious eye irritation.

H331 : Toxic if inhaled. H332 : Harmful if inhaled.

H335 : May cause respiratory irritation.
H336 : May cause drowsiness or dizziness.
H351 : Suspected of causing cancer.

H370 : Causes damage to organs.

EUH066 : Repeated exposure may cause skin dryness or cracking.

#### Full text of other abbreviations

Acute Tox. : Acute toxicity
Carc. : Carcinogenicity
Eye Irrit. : Eye irritation
Flam. Gas : Flammable gases
Flam. Liq. : Flammable liquids
Press. Gas : Gases under pressure

Skin Irrit. : Skin irritation

STOT SE : Specific target organ toxicity - single exposure

2000/39/EC : Europe. Commission Directive 2000/39/EC establishing a first

list of indicative occupational exposure limit values

2006/15/EC : Europe. Indicative occupational exposure limit values
2017/164/EU : Europe. Commission Directive 2017/164/EU establishing a
fourth list of indicative occupational exposure limit values

fourth list of indicative occupational exposure limit values

ZA BEI : South Africa. The Regulations for Hazardous Chemical

Agents, Biological Exposure Indices

ZA OEL : South Africa. The Regulations for Hazardous Chemical

Agents, Occupational Exposure Limits

2000/39/EC / TWA : Limit Value - eight hours 2000/39/EC / STEL : Short term exposure limit 2006/15/EC / TWA : Limit Value - eight hours 2017/164/EU / STEL : Short term exposure limit 2017/164/EU / TWA : Limit Value - eight hours

ZA OEL / OEL- ML : Occupational Exposure Limit Maximum limit - 8- hour expo-

sure or equivalent (12 hour shifts).

ZA OEL / OEL-RL : Occupational Exposure Limit Restricted limit - 8- hour expo-

sure or equivalent (12 hour shifts)

ZA OEL / OEL- RL STEL/C : Occupational Exposure Limit Restricted limit - Short term oc-

cupational exposure limits / ceiling limits

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Test-

LA LMM-6000SPRAY		GSLA_LMM-6000 B	lack Aerosol Spray Can
Product specification	RS_FP_603544	Revision Date	14.03.2023
Version	2.0	Print Date	05.05.2023
Material number	1130062	Page	Page 25 of 25

ing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA -European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level: NOELR - No Observable Effect Loading Rate: NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI -Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

#### **Further information**

## Classification of the mixture: Classification procedure:

Aerosol 1	H222, H229	Calculation method
Eye Irrit. 2	H319	Calculation method
Carc. 2	H351	Calculation method
STOT SE 3	H335	Calculation method

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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.