



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

 Product specification
 RS_FP_603463
 Revision Date
 15.02.2019

 Version
 4.0
 Print Date
 26.04.2019

 Material number
 1411218
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1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Material number : 1411218

Trade name : LA LMM-6000

GSLA_LMM-6000 Black Paste 250g

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

Use of the : Decorative coating

Substance/Mixture

1.3 Details of the supplier of the safety data sheet

Company : Ferro Corporation

6060 Parkland Blvd. Suite 250 44124-4185 Mayfield Heights

Telephone : +12168755600

Telefax

E-mail address : SDSNA@ferro.com

Responsible/issuing person

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)

Flammable liquids, Category 2 H225: Highly flammable liquid and vapour.

Eye irritation, Category 2 H319: Causes serious eye irritation.

Carcinogenicity, Category 2 H351: Suspected of causing cancer.

Specific target organ toxicity - single

exposure, Category 3, Respiratory

system

H335: May cause respiratory irritation.





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2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms







Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.

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. Keep container tightly closed.

P233 Keep container tightly closed. P261 Avoid breathing dust/ fume/ gas/

mist/ vapours/ spray.

P280 Wear protective gloves/ protective

clothing/ eye protection/ face

protection.

Response:

P370 + P378 In case of fire: Use dry sand, dry

chemical or alcohol-resistant foam

to extinguish.

Hazardous components which must be listed on the label:

Molybdenum(VI) oxide

ammonium metavanadate

ethyl acetate

Additional Labelling:

EUH208 Contains: Fatty acids, C18-unsatd., dimers, reaction products with N,N-

dimethyl-1,3-propanediamine and 1,3-propanediamine. May produce an

allergic reaction.

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.





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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical nature : organic solvent

carbonic acid/ester/anhydride

silicatic material

inorganic metal-nonmetal compound

inorganic salt

Hazardous components

| Chemical Name | CAS-No. EC-No. | Classification (REGULATION (EC) No 1272/2008) | Concentration (%) | | |
|----------------------------------------------------|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------|--|--|
| Molybdenum(VI) oxide | Registration number 1313-27-5 215-204-7 | Eye Irrit. 2; H319 Carc. 2; H351 | >= 30 - < 50 | | |
| ammonium metavanadate | 7803-55-6 232-261-3 | STOT SE 3; H335 Acute Tox. 3; H301 Acute Tox. 4; H332 Eye Irrit. 2; H319 | >= 3 - < 10 | | |
| 2-butoxyethanol | 111-76-2 203-905-0 01-2119475108-36- xxxx | STOT SE 3; H335 Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 | >= 1 - < 3 | | |
| ethyl acetate | 141-78-6 205-500-4 | Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 | >= 1 - < 3 | | |
| solvent naphtha (petroleum), light, aromatic | 64742-95-6 265-199-0 | Flam. Liq. 3; H226 Asp. Tox. 1; H304 | >= 0.1 - < 1 | | |
| Substances with a workplace exposure limit : | | | | | |
| ethanol | 64-17-5 200-578-6 | Flam. Liq. 2; H225 | >= 30 - < 50 | | |
| mica | 12001-26-2 310-127-6 | | >= 1 - < 10 | | |
| propane-1,2-diol | 57-55-6 200-338-0 | | >= 1 - < 10 | | |

For explanation of abbreviations see section 16.





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SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice : Move out of dangerous area.

Consult a physician.

Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

If inhaled : Consult a physician after significant exposure.

If unconscious place in recovery position and seek medical

advice.

In case of skin contact : Take off contaminated clothing and shoes immediately.

Wash off with soap and plenty of water. If symptoms persist, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.

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 : Clean mouth with water and drink afterwards plenty of water.

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

Symptoms : None known.

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 : The first aid procedure should be established in consultation

with the doctor responsible for industrial medicine.





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SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media : 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

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 allow run-off from fire fighting to enter drains or water

courses.

Hazardous combustion

products

: No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment

for firefighters

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

Further information : Use water spray to cool unopened containers.

Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored

separately in closed containments.

Use a water spray to cool fully closed containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

SAFFTY DATA SHFFT





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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 : Contain spillage, and then collect with non-combustible

absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to

local / national regulations (see section 13).

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 formation of aerosol.

Do not breathe vapours/dust.

Avoid exposure - obtain special instructions before use. Avoid exceeding the given occupational exposure limits (see

section 8).

Avoid contact with skin and eyes. For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the

application area.

Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Container may be opened only under exhaust ventilation

hood.

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

: Avoid formation of aerosol. Keep away from sources of ignition - No smoking. Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Take measures to prevent the build up of electrostatic charge. Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of

ignition.

Hygiene measures : Handle in accordance with good industrial hygiene and safety

practice. When using do not eat or drink. When using do not





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smoke. 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

: No smoking. Store in cool place. Keep in a well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

No smoking. Store in cool place. Keep in a well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Other data : 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

substance/mixture.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Expressed as | Basis |
|---------------------|-------------------|-------------------------------------|--------------------------|--------------|--------|
| ethanol | 64-17-5 | TWA OEL-RL | 1,000 ppm 1,900 mg/m3 | | ZA OEL |
| Further information | Recommended Limit | | | | |
| mica | 12001-26-2 | TWA OEL-RL (Respirable dust) | 1 mg/m3 | | ZA OEL |
| Further information | Recommended Limit | | | | |
| | | TWA OEL-RL (inhalable dust) | 10 mg/m3 | | ZA OEL |
| Further information | Recommended Limit | | | | |
| propane-1,2-diol | 57-55-6 | TWA OEL-RL (particulate) | 10 mg/m3 | | ZA OEL |
| Further information | Recommende | ed Limit | | | |





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| | | TWA OEL-RL (Vapour + particulates) | 150 ppm 470 mg/m3 | ZA OEL |
|---------------------|-------------------------------------------------------------------------------|------------------------------------------|------------------------|------------|
| Further information | Recommended Limit | | | |
| 2-butoxyethanol | 111-76-2 | TWA | 20 ppm 98 mg/m3 | 2000/39/EC |
| Further information | Identifies the possibility of significant uptake through the skin, Indicative | | | |
| | | STEL | 50 ppm 246 mg/m3 | 2000/39/EC |
| Further information | Identifies the possibility of significant uptake through the skin, Indicative | | | |
| | | TWA OEL-CL | 25 ppm 120 mg/m3 | ZA OEL |
| Further information | Control Limit, Absorption through the skin | | | |
| | | TWA OEL-RL | 25 ppm 120 mg/m3 | ZA OEL |
| Further information | Absorption through the skin, Recommended Limit | | | |
| ethyl acetate | 141-78-6 | TWA OEL-RL | 400 ppm 1,400 mg/m3 | ZA OEL |
| Further information | Recommend | ed Limit | - | |

Biological occupational exposure limits

| Substance name | CAS-No. | Control parameters | Sampling time | Basis |
|----------------|---------|--------------------|------------------------|--------|
| methanol | 67-56-1 | Methanol: 15 mg/l | End of shift | ZA BEI |
| | | (Urine) | | |
| | | Formic acid: 80 | Prior to last shift of | ZA BEI |
| | | mg/g Creatinine | workweek | |
| | | (Urine) | | |

8.2 Exposure controls

Engineering measures

No data available

Personal protective equipment

Eye protection : Eye wash bottle with pure water

Tightly fitting safety goggles

Wear face-shield and protective suit for abnormal processing

problems.





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Hand protection : Solvent-resistant gloves

The selected protective gloves have to satisfy the

specifications of EU Directive 89/686/EEC and the standard

EN 374 derived from it.

Before removing gloves clean them with soap and water. The suitability for a specific workplace should be discussed

with the producers of the protective gloves.

Skin and body protection : impervious clothing

Choose body protection according to the amount and

concentration of the dangerous substance at the work place.

Respiratory protection : In the case of vapour formation use a respirator with an

approved filter.

Protective measures : Wear suitable protective equipment.

Avoid contact with skin.

When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance : paste

Colour : yellow

Odour : characteristic

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

Auto-ignition temperature : No data available

Upper explosion limit : 19 %(V)

Lower explosion limit : 1.1 %(V)

Vapour pressure : No data available





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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

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

: No data available

Ignition temperature : Not determined

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : No data available

Explosive properties : No data available

Oxidizing properties : Not applicable

9.2 Other information

Refractive index : No data available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.

No decomposition if used as directed. No hazards to be specially mentioned.

Vapours may form explosive mixture with air.





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10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : No data available

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:

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

Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l

Exposure time: 4 h

Test atmosphere: vapour Method: Calculation method

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

Method: Calculation method

Components:

Molybdenum(VI) oxide:

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

Method: OECD Test Guideline 401

GLP: yes

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

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.

2-butoxyethanol:

Acute oral toxicity : LD50 Oral (Rat, male and female): 1,746 mg/kg





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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: ves

ethyl acetate:

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

Assessment: The substance or mixture has no acute oral

toxicity

ethanol:

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

Skin corrosion/irritation

Not classified based on available information.

Product:

Remarks: May cause skin irritation and/or dermatitis.

Components:

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

Method: OECD Test Guideline 404

Result: No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Remarks: May cause irreversible eye damage.





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Components:

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

2-butoxyethanol:

Result: Eye irritation

ethyl acetate:

Species: Rabbit

Result: No 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.

Product:

Remarks: No data available

Components:

Molybdenum(VI) oxide:

Remarks: No data available

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:





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ammonium metavanadate:

Assessment: May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks: Solvents may degrease the skin.

Components:

Molybdenum(VI) oxide: Remarks: No data available

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : No data available

Chronic aquatic toxicity : No data available

Components:

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.

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





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Toxicity to daphnia and other

aquatic invertebrates

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

Exposure time: 48 h

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

ethanol:

Toxicity to daphnia and other

aquatic invertebrates

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

Exposure time: 48 h

propane-1,2-diol:

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

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Components:

Molybdenum(VI) oxide:

Biodegradability : Remarks: No data available

ammonium metavanadate:

Biodegradability : Remarks: No data available

2-butoxyethanol:

Biodegradability : Remarks: No data available

ethyl acetate:



delivers performance



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Biodegradability : Remarks: No data available

solvent naphtha (petroleum), light, aromatic:

Biodegradability : Remarks: No data available

ethanol:

Biodegradability : Remarks: No data available

mica:

Biodegradability : Remarks: No data available

propane-1,2-diol:

Biodegradability : Remarks: No data available

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Components:

Molybdenum(VI) oxide:

Bioaccumulation : Remarks: No data available

ammonium metavanadate:

Bioaccumulation : Remarks: No data available

2-butoxyethanol:

Bioaccumulation : Remarks: No data available

Partition coefficient: n-

octanol/water pH: 7

ethyl acetate:

Bioaccumulation : Remarks: No data available

Partition coefficient: n-

octanol/water

: log Pow: 0.73 (20 °C)

: log Pow: 0.77 (20 °C)

solvent naphtha (petroleum), light, aromatic:

Bioaccumulation : Remarks: No data available

Partition coefficient: n-

octanol/water

: log Pow: 3.42 - 3.9

ethanol:

Bioaccumulation : Remarks: No data available

Partition coefficient: n- : log Pow: -0.349 (24 °C)





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octanol/water

mica:

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Bioaccumulation : Remarks: No data available

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propane-1,2-diol:

Bioaccumulation : Remarks: No data available

12.4 Mobility in soil

Product:

Distribution among : Remarks: No data available

environmental compartments

Components:

Molybdenum(VI) oxide:

Distribution among : Remarks: No data available

environmental compartments

ammonium metavanadate:

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

solvent naphtha (petroleum), light, aromatic:

Distribution among : Remarks: No data available

environmental compartments

ethanol:

Distribution among : Remarks: No data available

environmental compartments

mica:

Distribution among : Remarks: No data available

environmental compartments

propane-1,2-diol:

Distribution among : Remarks: No data available

environmental compartments





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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:

Additional ecological : Remarks: No data available

information There is no data available for this product.

Components:

Molybdenum(VI) oxide:

Additional ecological : Remarks: No data available

information There is no data available for this product.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.

Do not contaminate ponds, waterways or ditches with

chemical or used container.

Offer surplus and non-recyclable solutions to a licensed

disposal company.

Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product. 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

 ADN
 : UN 1993

 IMDG
 : UN 1993

 IATA
 : UN 1993

14.2 UN proper shipping name





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ADN : FLAMMABLE LIQUID, N.O.S.

(ethanol, ethyl acetate)

IMDG : FLAMMABLE LIQUID, N.O.S.

(ethanol, ethyl acetate)

IATA : Flammable liquid, n.o.s.

(ethanol, ethyl acetate)

14.3 Transport hazard class(es)

ADN : 3
IMDG : 3
IATA : 3

14.4 Packing group

ADN

Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3

Special Provisions : Special Provision 640E Special Provisions : Special Provision 640E Special Provisions : Special Provision 640E

IMDG

Packing group : III Labels : 3

EmS Code : F-E, <u>S-E</u>

IATA

Packing instruction (cargo : 366

aircraft)

Packing instruction : 355

(passenger aircraft)

Packing instruction (LQ) : Y344
Packing group : III
Labels : 3

14.5 Environmental hazards

ADN

Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 Special precautions for user

Not applicable

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

Not applicable for product as supplied.





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SECTION 15: REGULATORY INFORMATION

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

International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors

: Neither banned nor restricted

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Neither banned nor restricted

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals

: Neither banned nor restricted

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

REACH - List of substances subject to authorisation (Annex XIV)

1907/2006 (REACH), Article 57).

Reach - List of substances subject to authorisation (Reach), Article 57).

Regulation (EC) No 1005/2009 on substances that

: Neither banned nor restricted

Regulation (EC) No 850/2004 on persistent organic

: Neither banned nor restricted

pollutants

deplete the ozone layer

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

| P5c | FLAMMABLE LIQUIDS | Quantity 1 5,000 t | Quantity 2 50,000 t |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------|
| 34 | Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d) | 2,500 t | 25,000 t |





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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 components listed on the Canadian

NDSL. All other components are on the Canadian DSL.

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

15.2 Chemical Safety Assessment

Not applicable





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SECTION 16: OTHER INFORMATION

Full text of H-Statements

H225 : Highly flammable liquid and vapour.
H226 : Flammable liquid and vapour.

H301 : Toxic if swallowed. H302 : Harmful if swallowed.

H304 : May be fatal if swallowed and enters airways.

H312 : Harmful in contact with skin.

H315 : Causes skin irritation.

H319 : Causes serious eye irritation.

H332 : Harmful if inhaled.

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

Full text of other abbreviations

Acute Tox. : Acute toxicity
Asp. Tox. : Aspiration hazard
Carc. : Carcinogenicity
Eye Irrit. : Eye irritation
Flam. Liq. : Flammable liquids
Skin Irrit. : Skin irritation

STOT SE : Specific target organ toxicity - single exposure

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.