SAFETY DATA SHEET
METALURE LIQUID BLACK

SECTION 1. IDENTIFICATION

Product name : METALURE LIQUID BLACK
Product code : 053377QQ0

Manufacturer or supplier's details
Company name of supplier : ECKART GmbH
Address : Guentersthal 4
           Hartenstein  91235
Telephone : +499152770
Telefax : +499152777008
Emergency telephone : CHEMTREC: 800-424-9300
                      CHEMTREC: 1-703-527-3387 (International)
                      GBK Gefahrgut Buero GmbH, Ingelheim, Germany:
                      From outside US: (001) 352-323-3500
                      (First call in English, response in your language is possible)
                      US & Canada (toll free):1-800-5355-053

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200
Flammable liquids : Category 3
Reproductive toxicity : Category 1B
Specific target organ systemic toxicity - single exposure : Category 3 (Central nervous system)

GHS label elements
Hazard pictograms : ![Pictograms]
Signal Word : Danger
Hazard Statements:
H226 Flammable liquid and vapor.
H336 May cause drowsiness or dizziness.
H360 May damage fertility or the unborn child.

Precautionary Statements:

Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P370 + P378 In case of fire: Use dry sand, dry 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.
P405 Store locked up.

Disposal:
P501 Dispose of contents/container to an approved waste disposal plant.
Hazardous ingredients which must be listed on the label:
2-Propanol, 1-methoxy-
1-Propanol, 2-methoxy-

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanol, 1-methoxy-</td>
<td>107-98-2</td>
<td>&gt;= 70 - &lt; 90</td>
</tr>
<tr>
<td>Chromium</td>
<td>7440-47-3</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>Chromium oxide (Cr2O3)</td>
<td>1308-38-9</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>1-Propanol, 2-methoxy-</td>
<td>1589-47-5</td>
<td>&gt;= 0.1 - &lt; 1</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

General advice: Move out of dangerous area.
Show this material safety data sheet to the doctor in attendance.

If inhaled: Consult a physician after significant exposure.
If unconscious, place in recovery position and seek medical advice.

In case of skin contact: If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact: Flush eyes with water as a precaution.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed: Keep respiratory tract clear.
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.

Most important symptoms and effects, both acute and delayed: May cause drowsiness or dizziness.
May damage fertility or the unborn child.
## SECTION 5. FIRE-FIGHTING MEASURES

| Suitable extinguishing media | Alcohol-resistant foam  
Carbon dioxide (CO2)  
Dry chemical |
| Unsuitable extinguishing media | High volume water jet |
| Specific hazards during fire fighting | Do not allow run-off from fire fighting to enter drains or water courses. |
| Further information | 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. |
| Special protective equipment for fire-fighters | Wear self-contained breathing apparatus for firefighting if necessary. |

## SECTION 6. ACCIDENTAL RELEASE MEASURES

| Personal precautions, protective equipment and emergency procedures | Use personal protective equipment.  
Remove all sources of ignition.  
Evacuate personnel to safe areas.  
Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. |
| 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. |
| Methods and materials for containment and 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). |

## SECTION 7. HANDLING AND STORAGE

| Advice on protection against fire and explosion | Do not spray on a naked flame or any incandescent material.  
Take necessary action to avoid static electricity discharge |
Advice on safe handling:
- Avoid formation of aerosol.
- Do not breathe vapors/dust.
- Avoid exposure - obtain special instructions before use.
- 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.
- Open drum carefully as content may be under pressure.
- Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage:
- No smoking.
- Keep container tightly closed in a dry and 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.

Further information on storage stability:
- No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Propanol, 1-methoxy-</td>
<td>107-98-2</td>
<td>TWA</td>
<td>50 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>100 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ST</td>
<td>150 ppm 540 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>100 ppm 360 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>100 ppm</td>
<td>OSHA P0</td>
</tr>
</tbody>
</table>
Hazardous components without workplace control parameters

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Propanol, 2-methoxy-</td>
<td>1589-47-5</td>
</tr>
</tbody>
</table>

Personal protective equipment

Respiratory protection : In the case of vapor formation use a respirator with an approved filter.

Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Safety glasses

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid
Color : black
Odor : characteristic
Odor Threshold : No data available
pH : No data available
Melting point/freezing point : No data available
Boiling point/boiling range : 120 °C
Flash point : 31 °C
Evaporation rate : No data available
Flammability (solid, gas) : No data available
Upper explosion limit / Upper flammability limit : No data available
Lower explosion limit / Lower flammability limit : No data available
Vapor pressure : No data available
Relative density : No data available
Solubility(ies) : No data available
Partition coefficient: n-octanol/water : No data available
Autoignition temperature : No data available
Decomposition temperature : No data available
Viscosity : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.
Chemical stability : No decomposition if stored and applied as directed.
Possibility of hazardous reactions : No decomposition if stored and applied as directed.
Vapors may form explosive mixture with air.
Conditions to avoid : Heat, flames and sparks.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
Not classified based on available information.
**Ingredients:**

2-Propanol, 1-methoxy-:

- **Acute oral toxicity**: LD50 (Rat): 4,016 mg/kg
- **Acute inhalation toxicity**: LC50 (Rat): > 25.8 mg/l
  - Exposure time: 4 h
  - Test atmosphere: vapor
- **Acute dermal toxicity**: LD50 (Rabbit): > 2,000 mg/kg

Chromium:

- **Acute oral toxicity**: LD50 Oral: > 5,000 mg/kg
- **Acute inhalation toxicity**: LC50: > 5.41 mg/l
  - Exposure time: 4 h
  - Test atmosphere: dust/mist

**Skin corrosion/irritation**

Not classified based on available information.

**Serious eye damage/eye irritation**

Not classified based on available information.

**Respiratory or skin sensitization**

**Skin sensitization**

Not classified based on available information.

**Respiratory sensitization**

Not classified based on available information.

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**IARC**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is on OSHA’s list of regulated carcinogens.

**NTP**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen.
Reproductive toxicity
May damage fertility or the unborn child.

STOT-single exposure
May cause drowsiness or dizziness.

STOT-repeated exposure
Not classified based on available information.

Aspiration toxicity
Not classified based on available information.

Further information

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
No data available

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Other adverse effects
No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues
: Do not dispose of waste into sewer.
  Do not contaminate ponds, waterways or ditches with chemical or used container.
  Send to a licensed waste management company.
  In accordance with local and national regulations.

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.
  In accordance with local and national regulations.
SECTION 14. TRANSPORT INFORMATION

International Regulations

**IATA-DGR**
- UN/ID No.: UN 1263
- Proper shipping name: Paint
- Class: 3
- Packing group: III
- Labels: Flammable Liquids
- Packing instruction (cargo aircraft): 366
- Packing instruction (passenger aircraft): 355

**IMDG-Code**
- UN number: UN 1263
- Proper shipping name: PAINT
- Class: 3
- Packing group: III
- 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.

**Domestic regulation**

**49 CFR**
- UN/ID/NA number: UN 1263
- Proper shipping name: Paint
- Class: 3
- Packing group: III
- Labels: FLAMMABLE LIQUID
- ERG Code: 128
- Marine pollutant: no

SECTION 15. REGULATORY INFORMATION

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

**CERCLA Reportable Quantity**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
</tr>
</thead>
</table>

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Version 1.1  Revision Date: 03/21/2018  SDS Number: 102000000649  Date of last issue: 02/22/2018
Date of first issue: 02/22/2018

<table>
<thead>
<tr>
<th>Chromium</th>
<th>7440-47-3</th>
<th>5000</th>
</tr>
</thead>
</table>

**SARA 304 Extremely Hazardous Substances Reportable Quantity**
This material does not contain any components with a section 304 EHS RQ.

**SARA 302 Extremely Hazardous Substances Threshold Planning Quantity**
This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards**
- Flammable (gases, aerosols, liquids, or solids)
- Reproductive toxicity
- Specific target organ toxicity (single or repeated exposure)

**SARA 313**
The following components are subject to reporting levels established by SARA Title III, Section 313:

- Chromium 7440-47-3 >= 5 - < 10 %
- Chromium oxide (Cr2O3) 1308-38-9 >= 1 - < 5 %

**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).
The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):
- Chromium 7440-47-3 6.8 %
- Chromium oxide (Cr2O3) 1308-38-9 3.2 %
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 does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

**Clean Water Act**
This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.
This product contains the following toxic pollutants listed under the U.S. Clean Water Act Section 307
- Chromium 7440-47-3 6.8 %
- Chromium oxide (Cr2O3) 1308-38-9 3.2 %

**US State Regulations**
**Massachusetts Right To Know**
- 2-Propanol, 1-methoxy- 107-98-2
SAFETY DATA SHEET

METALURE LIQUID BLACK

Chromium
Chromium oxide (Cr2O3)

Massachusetts Right To Know
2-Propanol, 1-methoxy-
Chromium
Chromium oxide (Cr2O3)

Pennsylvania Right To Know
2-Propanol, 1-methoxy-
Chromium
Chromium oxide (Cr2O3)

Pennsylvania Right To Know
2-Propanol, 1-methoxy-
Chromium
Chromium oxide (Cr2O3)

New Jersey Right To Know
2-Propanol, 1-methoxy-
Chromium
Chromium oxide (Cr2O3)

California Prop. 65
WARNING: This product can expose you to chemicals including lead and cadmium, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances
2-Propanol, 1-methoxy-
Chromium
Chromium oxide (Cr2O3)
California Permissible Exposure Limits for Chemical Contaminants

2-Propanol, 1-methoxy- 107-98-2

Chromium 7440-47-3

Chromium oxide (Cr2O3) 1308-38-9

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

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

TSCA: On TSCA Inventory

TSCA list
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH: USA. ACGIH Threshold Limit Values (TLV)

NIOSH REL: USA. NIOSH Recommended Exposure Limits

OSHA P0: USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

OSHA Z-1: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants

ACGIH / TWA: 8-hour, time-weighted average

ACGIH / STEL: Short-term exposure limit

NIOSH REL / TWA: Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek

NIOSH REL / ST: STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday

OSHA P0 / TWA: 8-hour time weighted average

OSHA P0 / STEL: Short-term exposure limit

OSHA Z-1 / TWA: 8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely
Hazardous Substance; 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; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZILOC - 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 03/21/2018

The information provided in this Material 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 / Z8