SAFETY DATA SHEET

METALSTAR PANTONE 07-2877 SILVER US

SECTION 1. IDENTIFICATION

Product name : METALSTAR PANTONE 07-2877 SILVER US
Product code : 045645D00

Manufacturer or supplier's details
Company name of supplier : ECKART GmbH
Address : Guentersthal 4
           Hartenstein 91235
Telephone : +499152777008
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
Skin sensitization : Category 1
Reproductive toxicity : Category 2

GHS label elements
Hazard pictograms :

Signal Word : Warning
Hazard Statements : H317 May cause an allergic skin reaction.
                   H361 Suspected of damaging 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.
- P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
- P272 Contaminated work clothing must not be allowed out of the workplace.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P308 + P313 IF exposed or concerned: Get medical advice/ attention.
- P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
- P363 Wash contaminated clothing before reuse.

**Storage:**
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:
Fatty acids, tall-oil, cobalt salts

**Other hazards**
None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Hazardous ingredients**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>Distillates (petroleum), straight-run middle</td>
<td>64741-44-2</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>White mineral oil (petroleum)</td>
<td>8042-47-5</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>Distillates (petroleum), acid-treated middle</td>
<td>64742-13-8</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>Fatty acids, tall-oil, cobalt salts</td>
<td>61789-52-4</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
</tbody>
</table>

### SECTION 4. FIRST AID MEASURES
General advice: Take the victim into fresh air. Do not leave the victim unattended. Move out of dangerous area. Show this material safety data sheet to the doctor in attendance.

If inhaled: If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.

In case of skin contact: Wash off immediately with soap and plenty of water. If on skin, rinse well with water.

In case of eye contact: Immediately flush eye(s) with plenty of water. 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 be fatal if swallowed and enters airways. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Dry sand
ABC powder
Foam

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.

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:
- Evacuate personnel to safe areas.
- Use personal protective equipment.

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:
- Use mechanical handling equipment.
- Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
- Do not flush with water.
- Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion: Normal measures for preventive fire protection.

Advice on safe handling:
- 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.
- Dispose of rinse water in accordance with local and national regulations.
- Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Conditions for safe storage:
- Earthing of containers and apparatuses is essential.
- Reaction with water liberates extremely flammable gas (hydrogen).
- Take measures to prevent the build up of electrostatic charge.
- Use explosion-proof equipment.
- Store in original container.
- Keep containers tightly closed in a cool, well-ventilated place.
- Keep away from sources of ignition - No smoking.
- Keep container closed when not in use.
- 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.

Technical measures/Precautions:
- Protect from humidity and water.

Materials to avoid:
- Do not store near acids.
- Do not store together with oxidizing and self-igniting products.
- Never allow product to get in contact with water during storage.
- Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

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>Aluminum</td>
<td>7429-90-5</td>
<td>TWA (total dust)</td>
<td>50 Million particles per cubic foot</td>
<td>OSHA Z-3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable)</td>
<td>5 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (total dust)</td>
<td>15 mg/m3</td>
<td>OSHA Z-3</td>
</tr>
<tr>
<td>Substance/Description</td>
<td>TWA (total)</td>
<td>TWA (respirable fraction)</td>
<td>NIOSH REL</td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------</td>
<td>---------------------------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>White mineral oil (petroleum) 8042-47-5</td>
<td>5 mg/m³</td>
<td>5 mg/m³</td>
<td>OSHA Z-1</td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>5 mg/m³</td>
<td>OSHA P0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA (Mist)</td>
<td>5 mg/m³</td>
<td>NIOSH REL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST (Mist)</td>
<td>10 mg/m³</td>
<td>NIOSH REL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA (Inhalable fraction)</td>
<td>5 mg/m³</td>
<td>ACGIH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ingredients</td>
<td>CAS-No.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distillates (petroleum), straight-run middle</td>
<td>64741-44-2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distillates (petroleum), acid-treated middle</td>
<td>64742-13-8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Hazardous components without workplace control parameters**

- **Fatty acids, tall-oil, cobalt salts**
  - TWA (Mist): 61789-52-4
  - TWA: 0.02 mg/m³ (Cobalt)

**Personal protective equipment**

- **Respiratory protection**: Use suitable breathing protection if workplace concentration requires.
  - In the case of vapor formation use a respirator with an approved filter.

- **Hand protection**
  - **Material**: Solvent-resistant gloves (butyl-rubber)
  - **Remarks**: Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). The exact break through time can be obtained from the protective glove producer and this has to be observed. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Recommended preventive skin protection Skin should be washed after contact. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

- **Eye protection**: Goggles
- **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**: silver  
**Odor**: characteristic  
**Odor Threshold**: No data available  
**pH**: No data available  
**Melting point/freezing point**: No data available  
**Boiling point/boiling range**: > 260 °C  
**Flash point**: > 100 °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  
**Density**: 1.0 - 1.1 g/cm³  
**Solubility(ies)**: No data available  
**Partition coefficient: n-octanol/water**: No data available  
**Autoignition temperature**: No data available  
**Decomposition temperature**: No data available  
**Viscosity**:  
  - Viscosity, kinematic: > 22 mm²/s (40 °C)

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**: Contact with acids and alkalis may release hydrogen. Stable under recommended storage conditions.  
**Conditions to avoid**: Do not allow evaporation to dryness.
SECTION 11. TOXICOLOGICAL INFORMATION

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

**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**
May cause an allergic skin reaction.

**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**
Group 2B: Possibly carcinogenic to humans
Fatty acids, tall-oil, cobalt salts 61789-52-4

**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 by NTP.

**Reproductive toxicity**
Suspected of damaging fertility or the unborn child.
STOT-single exposure
Not classified based on available information.

STOT-repeated exposure
Not classified based on available information.

Aspiration toxicity
May be fatal if swallowed and enters airways.

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: The product should not be allowed to enter drains, water courses or the soil. 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. In accordance with local and national regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations
Remarks: Not classified as dangerous in the meaning of transport regulations.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

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: Respiratory or skin sensitization
Reproductive toxicity
Aspiration hazard

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

- Aluminum 7429-90-5 >= 10 - < 20 %
- Fatty acids, tall-oil, cobalt salts 61789-52-4 >= 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):
- Fatty acids, tall-oil, cobalt salts 61789-52-4 1.215 %

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 does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307
### US State Regulations

**Massachusetts Right To Know**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
</tr>
<tr>
<td>Soybean oil</td>
<td>8001-22-7</td>
</tr>
<tr>
<td>Tung oil</td>
<td>8001-20-5</td>
</tr>
<tr>
<td>Formaldehyde, polymer with dimethylbenzene and 4-(1,1-dimethylethyl)phenol</td>
<td>60806-48-6</td>
</tr>
<tr>
<td>White mineral oil (petroleum)</td>
<td>8042-47-5</td>
</tr>
<tr>
<td>Petroleum resins</td>
<td>64742-16-1</td>
</tr>
<tr>
<td>Propanoic acid, 2-methyl-, 1,1'-[2,2-dimethyl-1-(1-methylethyl)-1,3-propanediyl] ester</td>
<td>6846-50-0</td>
</tr>
</tbody>
</table>

**Pennsylvania Right To Know**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
</tr>
<tr>
<td>Soybean oil</td>
<td>8001-22-7</td>
</tr>
<tr>
<td>Tung oil</td>
<td>8001-20-5</td>
</tr>
<tr>
<td>Distillates (petroleum), straight-run middle</td>
<td>64741-44-2</td>
</tr>
<tr>
<td>Formaldehyde, polymer with dimethylbenzene and 4-(1,1-dimethylethyl)phenol</td>
<td>60806-48-6</td>
</tr>
<tr>
<td>Soybean oil, polymer with glycerol and isophthalic acid</td>
<td>66070-91-5</td>
</tr>
<tr>
<td>White mineral oil (petroleum)</td>
<td>8042-47-5</td>
</tr>
<tr>
<td>Petroleum resins</td>
<td>64742-16-1</td>
</tr>
<tr>
<td>Distillates (petroleum), acid-treated middle</td>
<td>64742-13-8</td>
</tr>
<tr>
<td>Fatty acids, tall-oil, cobalt salts</td>
<td>61789-52-4</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated middle</td>
<td>64742-46-7</td>
</tr>
<tr>
<td>Fatty acids, tall-oil, manganese salts</td>
<td>8030-70-4</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light</td>
<td>64742-47-8</td>
</tr>
</tbody>
</table>
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

- Aluminum 7429-90-5
- White mineral oil (petroleum) 8042-47-5

California Permissible Exposure Limits for Chemical Contaminants

- Aluminum 7429-90-5
- White mineral oil (petroleum) 8042-47-5

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

- **DSL**: This product contains one or several components listed in the Canadian NDSL.
- **TSCA**: On TSCA Inventory
- **EINECS**: On the inventory, or in compliance with the 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
- **OSHA Z-3**: USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
ACGIH / TWA : 8-hour, time-weighted average
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 Z-1 / TWA : 8-hour time weighted average
OSHA Z-3 / 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; IECS - 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 Obervable Effect Loading Rate; NTP - National
Toxicology Program; 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; 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 : 03/27/2018

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