ECKART
Effect Pigments

# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

| | | |
|---|---|---|
| **Product name** | **SDF 40-XD** | |
| **CAS #** | Mixture | **Revision #** 9 |
| **Distributor** | Eckart America Louisville<br>4101 Camp Ground Road<br>Louisville , KY 40211-2138 | **Revision date** 13-Oct-2008 |
| **Emergency Contact, CHEMTREC** | 800-424-9300 (US)<br>1-703-527-3887 (INTERNATIONAL) | |
| **General assistance** | 502-775-4280 | |

## 2. Hazards Identification

**Emergency overview** Flammable solid. May form explosive mixtures with air. Static charges created by dust generation in or near flammable vapors may cause flash fire. May be ignited by heat, sparks or flames. Contact with water liberates highly flammable gases. Exposure to powder or dusts may be irritating to eyes, nose and throat.

**Potential short term health effects**

| | |
|---|---|
| **Skin** | Components of the product may be absorbed into the body through the skin. |
| **Inhalation** | May cause breathing disorders and lung damage. |
| **Ingestion** | Do not ingest. |
| **Target organs** | Central nervous system. Eyes. Kidney. Respiratory system. Skin. |
| **Main symptoms** | Chronic exposure to damages of the brain and the central nervous system. Kidney injury may occur. |

## 3. Hazardous Materials / Information on Ingredients

| Component | Wt. % | CAS # |
|---|---|---|
| Aluminum | 90 - 100 | 7429-90-5 |

**Composition comments** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

## 4. First Aid Measures

**First aid procedures**

| | |
|---|---|
| **Eye contact** | Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists get medical attention. |
| **Skin contact** | Wash with water and soap as a precaution. |
| **Inhalation** | If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop. |
| **Ingestion** | If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. |
| **Notes to physician** | Symptoms may be delayed. |
| **General advice** | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

## 5. Fire Fighting Measures

| | |
|---|---|
| **Flash point** | Not available |
| **Auto-ignition temperature** | 1094 °F (590 °C) (calculated) |
| **Suitable extinguishing media** | DRY sand, sodium chloride powder, graphite powder or Met-L-X powder. Confining and smothering metal fires is preferable rather than applying water. Use water to cool fire-exposed containers and to protect personnel. Alcohol foam. Dry chemical or CO2. Do not use water. |
| **Fire fighting equipment/instructions** | Do not get water inside containers. Move containers from fire area if you can do it without risk. In the event of fire, wear self contained breathing apparatus. |
| **Hazardous combustion products** | Fire may produce irritating, corrosive and/or toxic gases. Reacts vigorously with water, moist air, and acid liberating flammable vapors which can be ignited. |

## 6. Accidental Release Measures

| | |
|---|---|
| **Evacuation procedures** | Keep unnecessary personnel away. Ventilate closed spaces before entering. Stay upwind. Keep out of low areas. |
| **Personal precautions** | Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. |
| **Methods for cleaning up** | Use non-sparking, conductive tools to collect material. |

## 7. Handling and Storage

| | |
|---|---|
| **Handling** | Use non-sparking tools when opening or closing containers. Use only explosion-proof equipment. |
| **Storage** | Keep in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. |

## 8. Exposure Controls / Personal Protection

| | |
|---|---|
| **Engineering measures to reduce exposure** | Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits. |

**Personal protective equipment**

| | |
|---|---|
| **Skin and body protection** | Wear suitable protective clothing. |
| **Respiratory protection** | A NIOSH- approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. When dusts or thermal processing fumes are generated and ventilation is not sufficient to effectively remove them, appropriate NIOSH/MSHA approved respiratory protection must be provided. |
| **General** | Avoid contact with the skin and the eyes. |
| **Hygiene measures** | When using do not smoke. Handle in accordance with good industrial hygiene and safety practice. |
| **Hand protection** | Protective gloves. |

**Exposure limits**

**ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)**

| | | |
|---|---|---|
| Aluminum | 7429-90-5 | 10 mg/m3 TWA (metal dust) |

**U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)**

| | | |
|---|---|---|
| Aluminum | 7429-90-5 | 15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction) |

## 9. Physical & Chemical Properties

| | |
|---|---|
| **Form** | Solid. |
| **Density** | 20 - 22 lbs/gal (calculated) |
| **Specific gravity** | 2.4 - 2.6 (Calculated) |
| **Volatile organic - wt. %** | 1 - 2 % Weight (Calculated) |

## 10. Chemical Stability & Reactivity Information

| | |
|---|---|
| **Hazardous polymerization** | Will not occur. |
| **Incompatibility** | strong acids and strong bases This product is incompatible with nitrates. |

## 11. Toxicological Information

**Routes of exposure**

**NIOSH - Pocket Guide - Target Organs**

| | | |
|---|---|---|
| Aluminum | 7429-90-5 | respiratory system, skin, eyes |

**Subchronic toxicity** Kidney injury may occur.

**Chronic toxicity** Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged or repeated exposure may cause lung injury.

**Symptoms and target organs**

**NIOSH - Pocket Guide - Target Organs**

| | | |
|---|---|---|
| Aluminum | 7429-90-5 | respiratory system, skin, eyes |

**Further information** Symptoms may be delayed.

## 12. Ecological Information

**Ecotoxicity** Components of this product have been identified as having potential environmental concerns.

## 13. Disposal Considerations

**Disposal instructions** Consult authorities before disposal. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

## 14. Transport Information

**DOT**

| | |
|---|---|
| **Proper shipping name** | Aluminum Powder, Coated |
| **Hazard class** | 4.1 |
| **UN number** | UN1309 |
| **Packaging group** | II |

**IATA**

| | |
|---|---|
| **Proper shipping name** | Aluminum Powder, Coated |
| **Hazard class** | 4.1 |
| **UN number** | UN1309 |
| **Packaging group** | II |

**IMDG**

| | |
|---|---|
| **Proper shipping name** | Aluminum Powder, Coated |
| **Hazard class** | 4.1 |
| **UN number** | UN1309 |
| **Packaging group** | II |

## 15. Regulatory Information

**Inventories**

| Country(s) or region | Inventory name | On inventory |
|---|---|---|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (CCS) | Yes |
| Europe | European Inventory of New and Existing Chemicals (EINECS) | No |
| Europe | European List of (ELINCS) | No |
| Japan | Japanese Inventory of Existing and New Chemical Substances (ENCS) | No |
| Korea | Korean Inventory of Chemicals (KICS) | Yes |
| New Zealand | New Zealand Inventory | No |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**Canadian regulations** This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA Hazardous Substances - Not applicable.

**U.S. - CERCLA/SARA - Section 313 - Emission Reporting**

| Component | CAS # | Data Value |
|---|---|---|
| Aluminum | 7429-90-5 | 1.0 % de minimis concentration (dust or fume only) |

**State regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**U.S. - Massachusetts - Right To Know List**

| | | |
|---|---|---|
| Aluminum | 7429-90-5 | Present |

**U.S. - New Jersey - Right to Know Hazardous Substance List**

| | | |
|---|---|---|
| Aluminum | 7429-90-5 | sn 0054 (dust and fume); sn 2110 (powder, coated); sn 2111 (powder, uncoated, non-pyrophoric) |

**U.S. - Pennsylvania - RTK (Right to Know) List**

| | | |
|---|---|---|
| Aluminum | 7429-90-5 | Environmental hazard |

**U.S. - Rhode Island - Hazardous Substance List**

| | | |
|---|---|---|
| Aluminum | 7429-90-5 | Toxic; Flammable |

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

| | |
|---|---|
| **Section 302 Extremely Hazardous Substance** | No |
| **Section 311 Hazardous Chemical** | Yes |
| **Hazard Categories** | Immediate Hazard - Yes<br>Delayed Hazard - Yes<br>Fire Hazard - Yes<br>Pressure Hazard - No<br>Reactivity Hazard - No |

| | | |
|---|---|---|
| **HMIS ratings** | Health | 1 |
| | Flammability | 3 |
| | Reactivity | 1 |

## 16. Other Information

**Issue date** 13-Oct-2008

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**Replaces sheet dated** 10-Oct-2008

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**Glossary of abbreviations**

ACGIH = American Conference of Governmental Industrial Hygenists
C9 = Nine Carbons
CAS = Chemical Abstracts Service
CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
CFR = Code of Federal Regulations
DOT = Department of Transportation
gm/kg = grams per kilograms
HMIS = Hazardous Materials and Information System
IARC = International Agency for Research on Cancer
LC = Lethal Concentration
LD = Lethal Dose
LEL = Lower Explosive Limit
mg/m3 = milligrams per cubic meter
mg/kg = milligrams per kilograms
mg/l = milligrams per liter
mmHg = millimeters of mercury
MSHA = Mine Safety and Health Administration
N/A = Not Applicable
ND = Not Determined
NIOSH = National Institute for Occupational Safety and Health
NTP = National Toxicology Program
TWA = Time Weighted Average
OSHA = Occupational Safety and Health Administration
PELs = Permissible Exposure Limits
ppm = parts per million
RCRA = Resource Conservation and Recovery Act
SARA = Superfund Amendments and Reauthorization Act
STEL = Short Term Exposure Limit
TLVs = Threshold Limit Values
TSCA = Toxic Substances Control Act
UEL = Upper Explosive Limit
UN = United Nations
VOC = Volatile Organic Compound
WHMIS = Workplace Hazardous Materials Information System