

MATERIAL SAFETY DATA SHEET

MAY BE USED TO COMPLY WITH OSHA'S HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200 AND SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) OF 1986 PUBLIC LAW 99-499. STANDARD SHOULD BE CONSULTED FOR SPECIFIC REQUIREMENTS.

SECTION I (IDENTIFICATION)

**MANUFACTURER/
SUPPLIERS NAME:** **EUTECTIC CORPORATION**
N94 W14355 Garwin Mace Drive
Menomonee Falls, WI 53051 USA

TELEPHONE NUMBER:
1-800-558-8524

PRODUCT NAME: **Eutectic 5018**

PRODUCT CLASSIFICATION: **Thermal Spray Powder**

SECTION II (HAZARDOUS INGREDIENTS/IDENTITY INFORMATION)

IMPORTANT: This section covers the materials from which these products are manufactured. The fumes and gases produced during normal use of these products are covered in Section V. The term "Hazardous" in "Hazardous Ingredients" should not only be interpreted as a term required and defined in OSHA Hazard Communication Standard (29 CFR Part 1910.1200), but also as defined by other regulatory agencies. The chemicals or compounds subject to reporting under Title III, in Section 313, of the Superfund Amendments and Reauthorization Act (SARA) are marked by the symbol #.

WARNING: This product contains or produces a chemical known to the State of California to cause birth defects (or other reproductive harm) and cancer. (California Health & Safety Code 25249.5 et seq.)

INGREDIENTS	CAS		Exposure Limit (mg/m³)		Percent Ingredients (by weight)
	NUMBER	OSHA PEL	ACGIH-TLV		
Nylon II	25587-80-8	15	10		60 – 100
Nylon 6/6.6/12	51365-12-9	Not listed	Not listed		7 – 13

SECTION III (PHYSICAL DATA) - Powder.**SECTION IV (FIRE AND EXPLOSION HAZARD DATA)**

Flames used for powder spraying can ignite combustibles. Refer to American National Standard Z49.1 for fire prevention during welding. Irritating and / or toxic gases due to decomposition of the product may be generated during a fire. Thermal decomposition products can include CO₂, CO, NO_x, and smoke. Avoid dispersion of dust into the air to reduce the potential explosion hazard.

FIRE FIGHTING EQUIPMENT: wear full protective clothing, including helmet, self contained breathing apparatus, protective clothing, and facemask. Move container from area if it can be done without risk. Use water mist, dry chemical, carbon dioxide, or chemical foam. Dusts can form an explosive mixture with air. Rating under National Fire Protection 704: Health, 1: Flammability, 0: Reactivity, 0.

SECTION V (REACTIVITY DATA)

Powder spray fumes cannot be classified simply. The composition and quantity of both are dependent upon the metal being sprayed, the process, procedure, and the powder used. Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include: coatings on the metal being sprayed (such as paint, plating, or galvanizing), the volume of the work area, the quality and the amount of ventilation, position of the worker's head with respect to the fume plume, as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from cleaning and degreasing activities).

When the material is consumed, fume and gas decomposition products generated are different in percent and form from the ingredients listed in Section II. Fume and decomposition products, not the ingredients in the powder, are important. Decomposition products include those originating from the volatilization, reaction, or oxidation of materials in Section II, plus those from the base metal and coating, etc., as noted above. These components are virtually always present as complex oxides and not as metals (Characterization of Arc Welding Fume: American Welding Society).

Gaseous reaction products may include carbon monoxide and carbon dioxide. Monitor fume levels. One recommended way to determine the composition and quantity of fumes and gas to which workers are exposed is to take an air sample inside the welder's helmet if worn, or in the worker's breathing zone (see ANSI/AWS F1.1, F1.2, F1.3, F1.4, and F1.5, available from the "American Welding Society," 550 N.W. LeJeune Road, Miami, FL 33126).

INCOMPATIBILITY: oxidizing materials, strong acids and strong bases. **HAZARDOUS POLYMERIZATION:** will not occur.

SECTION VI (HEALTH HAZARD DATA)

Threshold Limit Value (TLV): The **ACGIH** recommended general limit for welding fume NOS (not otherwise specified) is 5 mg/m³. The **ACGIH 1999** preface states: "The **TLV-TWA** should be used as guides in the control of health hazards and should not be used as firm lines between safe and dangerous concentrations." See Section V for specific fume constituents that may modify the **TLV**.

EFFECTS OF OVEREXPOSURE - Powder spraying may create one or more of the following health hazards:

FUMES AND GASES can be dangerous to your health.

PRIMARY ROUTES OF ENTRY are the respiratory system. Other possible routes are eyes, ingestion, and/or skin contact.

PREEXISTING respiratory or allergic conditions may be aggravated in some individuals (i.e. asthma, emphysema).

SHORT TERM (ACUTE) OVEREXPOSURE to spray powder fumes may result in discomfort such as metal fume fever, dizziness, nausea, or dryness or irritation of nose, throat, or eyes. **PRIMARY ROUTE OF ENTRY** is the respiratory system. Symptoms of overexposure might include mild nasal and respiratory irritation, coughing, and difficulty breathing.

LONG TERM (CHRONIC) OVEREXPOSURE - nothing reported. **PRIMARY ROUTE OF ENTRY** is the respiratory system.

See Section VII for precautions.

EMERGENCY & FIRST AID PROCEDURES: Call for medical aid. Employ first aid techniques recommended by The American Red Cross.

INHALATION: Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, begin artificial respiration.

If no detectable pulse, begin Cardiopulmonary Resuscitation (CPR). Call for medical aid.

SKIN: Wash affected area with soap and water. If rash develops, see a physician.

EYES: Flush with a large amount of fresh water for at least 15 minutes. Get medical attention.

INGESTION: Seek immediate medical attention.

CARCINOGENICITY

WELDING FUMES (not otherwise specified) are considered to be carcinogenic defined with no further categorization by **NIOSH** and **IARC**.

SECTION VII (PRECAUTION FOR SAFE HANDLING AND USE/APPLICABLE CONTROL MEASURES)

Read and understand the manufacturer's instructions and precautionary label on this product.

See American National Standard Z49.1, Safety in Welding and Cutting, published by the "American Welding Society," 550 N.W. LeJeune Road, Miami, FL 33126 and OSHA Publication 2206 (29CFR 1910), U.S. Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954 for more detail on the following:

Ventilation: Use enough explosion proof exhaust ventilation at the spray area to keep the fumes and gases below the TLV's in the workers breathing zone and the general area. Ventilation should effectively remove and prevent buildup of any dust generated from the handling of this product. Train the worker to keep his head out of the fumes. Monitor fume levels and do not exceed permissible exposure limits or values.

Respiratory Protection: Use respirable fume respirator or air supplied respirator when spraying in a confined space or where local exhaust or ventilation does not keep exposure below the TLV's.

Eye Protection: Wear appropriate safety goggles.

Protective Clothing: Wear hand and body protection to prevent injury. See ANSI Z49.1.

Waste: Dispose of any waste residues in accordance with EPA or local regulations. Plastic containers and cardboard packaging can be recycled.

Storage: Keep material sealed and dry before use. Store in a cool and well-ventilated place. Avoid dust accumulation of this material. Eliminate all sources of ignition. Avoid contact with moisture or water. Keep separate from incompatible materials.

Handling Procedures: Avoid dust accumulation of this material to reduce potential explosion hazards. Use non-sparking tools when opening or closing containers. Use spark proof, bonded, and grounded conveying and processing equipment to prevent static charge build-up. Keep this product away from heat, sparks, or open flames.

SUPPLEMENTAL INFORMATION

IARC: International Agency for the Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
NIOSH: National Institute for Occupational Safety and Health
NTP: National Toxicology Program
PEL: Permissible Exposure Limit
OSHA: U.S. Occupational Safety and Health Administration
TLV: Threshold Limit Value
CAS: Chemical Abstracts Service Registry Number

Exposure limits are subject to change. Contact ACGIH, OSHA, NIOSH, and IARC for current values.

The information in this MSDS was obtained from sources we believe are reliable. However, this information is provided without any representation or warranty, expressed or implied, regarding accuracy or correctness. The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons we do not assume responsibility and expressly disclaim liability of loss, damage, or expense arising from it or any way connected with the handling, storage, use, or disposal of the product.