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 1: PRODUCT AND COMPANY IDENTIFICATION

NAME OF PRODUCT: **EUTECTO MASK**
SYNONYMS: **X-MASK, Mask Compound**
PRODUCT CODES: **XMASK-11.34K, XMASK-22.68K, XMASK-340G, XMASK-907G**

MANUFACTURER/: SUPPLIER
EUTECTIC CORPORATION
N94 W14355 GARWIN MACE DRIVE
MENOMONEE FALLS, WI 53051 USA

TELEPHONE NUMBER (262) 532-4677
FAX NUMBER: (262) 255-5542
EUTECTIC WEBSITE: www.eutectic.com

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night:
Within USA and Canada: 1-800-424-9300
Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

PRODUCT USE: Chemical Aid - a high temperature compound to protect surfaces from heat staining and spatter adhesion.

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Chemically stable and inert. Does not pose a fire hazard as shipped. **Non-Flammable**: Flames used for brazing and spraying can ignite combustibles. Refer to American National Standard Z49.1 for fire prevention during welding. These products as shipped are non-hazardous, nonflammable, non-explosive, and non-reactive. In case of fire, use NIOSH/MSHA self contained breathing apparatus.

ROUTES OF ENTRY: Primary route of entry is the respiratory system. Other possible routes are eyes, ingestion, and/or skin contact.

POTENTIAL HEALTH EFFECTS:
EYES: Inert foreign body hazard only.
SKIN: Rashes/irritations due to contact may occur. Spatter and flames from brazing and welding may cause burns.
INGESTION: Danger of damage to health if swallowed.
INHALATION: Danger of damage to health by prolonged exposure through inhalation.

ACUTE HEALTH HAZARDS: see Section 11

CHRONIC HEALTH HAZARDS: see Section 11

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.).

WARNING: avoid breathing welding fumes and gases; they may dangerous to your health. Always use adequate ventilation and use appropriate personal protection equipment.

CARCINOGENICITY
SILICON DIOXIDE - is listed as being carcinogenic to humans on **IARC** and **NTP** lists, and is listed by **NIOSH** as being a potential occupational carcinogen (with no further categorization).
WELDING FUMES (not otherwise specified) are considered to be carcinogenic defined with no further categorization by **NIOSH** and **IARC**.

GHS classification: not applicable

Hazard Statements:
H317 May cause an allergic skin reaction

Precautionary Statements
P285 In case of inadequate ventilation wear respiratory protection.
P314 Get medical advice/attention if you feel unwell.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P501 Dispose of contents/container to waste treatment facility in accordance with local and national regulations.

SECTION 2 NOTES: Before using this product, contact your doctor to determine if exposure to product or use of this product will aggravate your medical conditions. Spatter and flames from brazing and welding may cause burns and start fires.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

IMPORTANT: This section covers the materials from which these products are manufactured. Any of 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 #.

Exposure Limit (mg/m^3)

INGREDIENTS	CAS NUMBER	OSHA PEL	ACGIH-TLV	Percent Ingredients (by Weight)
Zirconium silicate (zircon)	14940-68-2	5 (as Zr)	5 (as Zr)	40 – 70
Water	7732-18-5	Not listed	Not listed	10 – 30
Silica, amorphous, fumed	7631-86-9	6	10	1 – 5
Glycerin	56-81-5	5	10	1 – 5

CAS / EINECS NUMBER / HAZARD CLASSIFICATION FOR ABOVE INGREDIENTS

INGREDIENTS	CAS NUMBER	EINECS NUMBER	Hazard Classification per ECD 67/548/EEC
Zirconium silicate (zircon)	14940-68-2	239-019-6	No
Water	7732-18-5	231-791-2	No
Silica, amorphous, fumed	7631-86-9	231-545-4	No
Glycerin	56-81-5	200-289-5	No

SECTION 3 NOTES: Exposure limits are subject to change. Contact ACGIH and OSHA for current values. See Section 16 for European Council Directive 67/548/EEC R-phrases and S-phrases if applicable.

SECTION 4: FIRST AID MEASURES

EMERGENCY & FIRST AID PROCEDURES: Call for medical aid and inform them of the ingredients from Section 3. Employ first aid techniques recommended by The American Red Cross.

EYES: Flush with a large amount of fresh water for at least 15 minutes. Get medical attention.
SKIN: Wash affected area with soap and water to remove solution. If rash develops, see a physician. Get medical attention for irritations that persist.
INGESTION: Seek medical attention immediately.
INHALATION: Remove to fresh air. If breathing is difficult administer oxygen. If breathing has stopped, begin artificial respiration and obtain medical assistance immediately.
GENERAL: Move to fresh air and call for medical aid.

SECTION 4 NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: See Section 3 for ingredients.

SECTION 5: FIRE FIGHTING MEASURES

Non-Flammable This product as shipped is non-hazardous, nonflammable, non-explosive, and non-reactive. In case of fire, Use NIOSH/MSHA self contained breathing apparatus.

NFPA HAZARD CLASSIFICATION:
Health: 1 Flammability: 0 Reactivity: 0

Other: In case of fire, Use NIOSH/MSHA self contained breathing apparatus.

HMIS HAZARD CLASSIFICATION:
Health: 1 Flammability: 0 Reactivity: 0

In case of fire, Use NIOSH/MSHA self contained breathing apparatus.

EXTINGUISHING MEDIA: Use the extinguishing media recommended for the burning material and fire situation.

SPECIAL FIRE FIGHTING PROCEDURES: In case of fire, Use NIOSH/MSHA self contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

HAZARDOUS DECOMPOSITION PRODUCTS: Overheating may generate a non-toxic nuisance dust.

SECTION 5 NOTES: None

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Absorb with inert material and place in a suitable container for proper disposal.

PERSONAL PRECAUTIONS: Chemical goggles and chemical resistant gloves.

ENVIRONMENTAL PRECAUTIONS: See Section 12 and 13

SECTION 6 NOTES: None

SECTION 7: HANDLING AND STORAGE

HANDLING: Avoid exposure to dust, do not ingest and avoid contact with eyes. Some individuals can develop an allergic reaction to certain materials. Do not breathe fumes. Do not eat, drink, or smoke when using this product. Wash thoroughly after using this product.

STORAGE: Keep material sealed and in the original container before use. After using, keep remaining product sealed and dry in original (labeled) packaging.

SECTION 7 NOTES: none

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION



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

ENGINEERING CONTROLS: Proper ventilation **must** be maintained.
VENTILATION: Use enough ventilation, local exhaust at the work area, or both, to keep the fumes and gases below the TLV's in the workers breathing and the general area. 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: Do NOT breathe fumes. Use respirable fume respirator or air supplied respirator when brazing in a confined space or where local exhaust or ventilation does not keep exposure below the TLV's.
EYE PROTECTION: Wear chemical safety goggles to protect against accidental contact.
PROTECTIVE CLOTHING: Wear chemical resistant gloves when using or prolonged contact with skin or repeated contact with skin is likely. Wear hand and body protection to prevent injury. See ANSI Z49.1.
SKIN PROTECTION: Individuals having sensitive skin may find it beneficial to use a barrier cream or moisturizer when excessive or prolonged contact with skin is likely.
WORK HYGIENIC PRACTICES: Professionally wash contaminated clothing before re-use. Food and drink should not be consumed or tobacco products used, nor cosmetics applied in area where exposures are possible.
EXPOSURE GUIDELINES: Use industrial hygiene monitoring equipment to ensure that exposure does not exceed applicable national exposure limits.

EFFECTS OF OVEREXPOSURE - brazing / thermal spraying / welding may create one or more of the following health hazards:
FUMES AND GASES can be dangerous to your health.
PRIMARY ROUTES OF ENTRY is 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).

Welding fumes and fumes from thermal spraying cannot be classified simply. The composition and quantity of both are dependent upon the metal being worked on, the process, procedure, and the products 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 worked on (such as paint, plating, or galvanizing), the number of workers and 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 used as intended, as the alloy or powder is consumed, fume and gas decomposition products generated are different in percent and form from the ingredients listed in Section 3. Fume and decomposition products, not the ingredients in the product, are important. Decomposition products include those originating from the volatilization, reaction, or oxidation of materials in Section 3, 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). See the Safety Data Sheet for the product that is being used in conjunction with the Eutecto-Mask.

Monitor fume levels.

SECTION 8 NOTES: Exposure limits are subject to change. Contact ACGIH, OSHA, NIOSH, and IARC for current values.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Yellow paste, slight odor
Changes in the physical state: drys to form a barrier shell
Flash point: n.a.

pH-Value: n.a.
Boiling point: 212 °F (100 °C)

SECTION 9 NOTES: None

SECTION 10: STABILITY AND REACTIVITY

GENERAL: This item is only intended for ancillary support for general activities involving brazing, soldering, welding and thermal spaying applications.

STABILITY: Product is chemically stable and non-reactive.

CONDITIONS TO AVOID: Keep product away from heat and moisture.

MATERIALS TO AVOID: Non-reactive.

HAZARDOUS POLYMERIZATION: Will not occur.

REACTIVITY: None.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Fumes can be dangerous to your health. See Section 11

SECTION 10 NOTES: In other countries the exposure limits listed in Section 3 may be different and the appropriate country standards should be used.

SECTION 11: TOXICOLOGICAL INFORMATION

Threshold Limit Value: 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 8 for specific fume constituents that may modify the **TLV**.

ACUTE TOXICITY: **SHORT TERM (ACUTE) OVEREXPOSURE** to welding 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. Exposure of glycerin to high temperatures may generate vapor levels sufficient to cause irritation of the respiratory system.

CHRONIC TOXICITY: **LONG TERM (CHRONIC) OVEREXPOSURE** is believed by some investigators to affect pulmonary functions. **PRIMARY ROUTE OF ENTRY** is the respiratory system. Repeated inhalation of amorphous silica can cause pneumoconiosis or non-disabling fibrosis of the lung.

SECTION 11 NOTES: Avoid direct inhalation of fumes during heating and avoid inhalation of dust. Do not allow dust to accumulate. Monitor fume levels.

SECTION 12: ECOLOGICAL INFORMATION

CONTAMINATED PACKAGING: Empty containers should be taken for local recycling, recovery, or waste disposal.

SPILLS: Clean up with inert material and dispose of in accordance to local regulations.

SECTION 12 NOTES: Do not flush into surface water or sanitary sewer system.

SECTION 13: DISPOSAL CONSIDERATION

WASTE DISPOSAL METHOD: Dispose of any rod and waste residues in accordance with EPA or local regulations.

SECTION 13 NOTES: Review U.S. Federal Hazardous Waste Regulations §40 CFR261 to determine if this is hazardous in USA. Please be advised that state and local requirements, or other country requirements, for waste disposal may be more restrictive or otherwise different than U.S. Federal regulations. It is not possible to give this product a waste code number according to the European waste catalogue because only the intended use of the user consents the assignment of a specific code number.

SECTION 14: TRANSPORTATION INFORMATION

DOMESTIC TRANSPORT REGULATIONS (USA): DOT - not regulated.

DOMESTIC TRANSPORT REGULATIONS (CANADA): TDG - not regulated.

DOMESTIC TRANSPORT REGULATIONS (MEXICO): MEX - not regulated.

INTERNATIONAL TRANSPORT REGULATIONS:
ICAO – not regulated
IATA – not regulated
IMDG / IMO – not regulated

OTHER AGENCIES: No international regulations or restrictions are applicable.

SECTION 14 NOTES: Handle with care to avoid damaging the product and keep product dry. Do not remove product identification label or warning label. Keep material from freezing and away from heat.

SECTION 15: REGULATORY INFORMATION

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 safe use of product.

U.S. EPA TSCA (TOXIC SUBSTANCE CONTROL ACT): All constituents of these products are on the TSCA inventory list or are excluded from listing.

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center and to our Local Emergency Planning Committee.

EPCRA/SARA TITLE III 313 TOXIC CHEMICALS:
The following metallic components are listed as SARA 313 "TOXIC CHEMICALS" and are potentially subject to annual SARA 313 reporting. See Section 3 if the ingredient is present and for percent.

INGREDIENT NAME	CAS NUMBER	DISCLOSURE THRESHOLD
Chromium & chromium compounds	7440-47-3	1.0 % de minimis concentration
Chromium VI	Not listed	0.1 % de minimis concentration
Barium compounds	Not listed	1.0 % de minimis concentration
Cobalt	7440-48-4	0.1 % de minimis concentration
Copper	7440-50-8	1.0 % de minimis concentration
Manganese	7439-96-5	1.0 % de minimis concentration
Nickel	7440-02-0	0.1 % de minimis concentration
Aluminum (fume or dust)	7429-90-5	1.0 % de minimis concentration
Silver	7440-22-4	1.0 % de minimis concentration

Package Labeling:
Additional advice on labeling:
As a finished article the product does not need to be labeled in accordance with EC-directives or respective national laws.

SECTION 15 NOTES: International rules may vary and the appropriate regulations should be followed as defined by the country where the product is used.

SECTION 16: OTHER INFORMATION

This Safety Data Sheet has been revised due to modifications to several paragraphs and/or new format.
Prepared by Eutectic Corporation. USA.

SUPPLEMENTAL INFORMATION – DEFINITIONS:
IARC: International Agency for the Research on Cancer
NIOSH: National Institute for Occupational Safety and Health
OSHA: U.S. Occupational Safety and Health Administration
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service Registry Number
EINECS: European Inventory of Existing Chemical Substances
PEL: Permissible Exposure Limit
NTP: National Toxicology Program
TLV: Threshold Limit Value
ECD: European Council Directive
GHS: Globally Harmonized System

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