

**PRODUCT NAME(S): Metal Fusion Pigments**
**SECTION 1 – IDENTIFICATION**

**Manufacturer's Info:**  
**Rhino Linings Corporation**  
 9747 Businesspark Avenue  
 San Diego, CA, 92131

**Product name:**

**Metal Fusion Pigments:**  
**Antique Gold**  
**Blue Flame**  
**Steel Blue**

**Information phone:** (858) 450 0441

**Emergency contact:** CHEMTREC (800) 424 9300

**SECTION 2 – HAZARD(S) IDENTIFICATION**
**OSHA Hazard Communication Standard:**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**GHS-Label Elements:**

**Signal Word:**  
 WARNING

**Pictogram(s):**



GHS 08



GHS 07

**Classification of the substance or mixture:**

<u>Hazard Class</u>	<u>Category</u>	<u>Hazard Statement Codes</u>	<u>Hazard Statements</u>
Skin corrosion / irritation	2	H315	Causes skin irritation
Serious eye damage / Eye irritation	2A	H319	Causes serious eye irritation
Specific target organ toxicity, single exposure	3	H335	May cause respiratory irritation
Specific target organ toxicity, repeated exposure	2	H373	May cause respiratory irritation, lungs, liver and cardiovascular system damage through prolonged or repeated exposure by inhalation

**Precautionary Statements:**

<b>Prevention:</b>	P271 P260 P280 P264	Use only outdoors or in a well-ventilated area. Do not breathe dusts or mists. Wear protective gloves/ protective clothing / eye protection/ face protection. Wash exposed area with plenty of water and soap thoroughly after handling.
<b>Response:</b>	P302 + P352 P332 + P313 P362 P304 + P340 + P312 P305 + P351 + P338 P337 + P313	IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash before reuse. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.
<b>Storage:</b>	P403 + P233 P405	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
<b>Disposal:</b>	P501	Dispose of contents/container to hazardous or special waste collection point in accordance with local/regional/national/international regulations.

**Hazards not otherwise classified:**

See Section 11.

**SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS**

<b>Components</b>	<b>CAS #</b>	<b>EC #</b>	<b>Concentration, %</b>
Mica (Potassium Aluminum Silicate)	12001-26-2	601-648-2	40 – 60
Iron Oxide Red	1309-37-1	215-168-2	40 – 60

**SECTION 4 – FIRST-AID MEASURES**

**Description of First Aid Measures:**

- Inhalation:** Remove the exposed person to fresh air and keep at rest in a position comfortable for breathing. Seek medical help if coughing or other symptoms persist. Inhalation of large amounts of the product requires immediate medical attention. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If unconscious, place in recovery position and maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed.
- Skin:** Heavy exposure to the product requires prompt attention. Quickly and gently brush away excess product. Wash material off of the skin thoroughly with lukewarm, gently flowing water and non-abrasive pH natural soap for at least 15 minutes. Remove contaminated clothing and shoes and wash them before reuse. Seek medical attention if irritation develops or persists.
- Eye:** Immediately flush eyes cautiously with plenty of water for several minutes, especially under the eyelids. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Do not rub eyes in order to prevent cornea injury. Injuries must be treated promptly by a physician or ophthalmologist.
- Ingestion:** Remove the exposed person to fresh air and keep at rest in a position comfortable for breathing. Remove dentures if any. If conscious, rinse mouth thoroughly with water and then give 60 to 240 mL (2 to 8 oz) of water to drink. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

**Most important symptoms/effects, acute and delayed:** See Section 11 for more details.

**General advice for First Aid responders:** Show this SDS to physician.

**Note to physician:** Treatment should be supportive and based on the judgment of the physician in response to the reaction of the patient. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Recommended medical monitoring for at least 24hours.

**SECTION 5 – FIRE-FIGHTING MEASURES**

**Suitable extinguishing media:** Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media:** Not known.

**Specific hazards arising from the chemical:** This product is non-flammable and non-combustible. Containers at risk from fire should be cooled with water spray and, if possible, removed from the danger area. Hazardous combustion products: carbon, silica and metal oxides.

**Special Protective Equipment and Precautions for fire-fighters:** Wear NIOSH or OSHA approved self-contained breathing apparatus in positive pressure mode with full face piece and full protective gear. Isolate the scene by removing all persons from the incident area. No action should be taken involving any personal risk or without suitable training.

**SECTION 6 – ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures:** Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Ensure adequate ventilation/exhaust extraction. Avoid breathing dust during clean up. Use protective equipment as described in Section 8.

**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater, basements or confined areas. Inform the relevant authorities if the product has caused environmental pollution. See Section 12 for more details.

**Methods and materials for containment and cleaning up:** Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with HEPA filter and place in a designated labeled waste container. Seal the container, and properly dispose of the waste material in accordance with existing federal, state and local regulations. Residues from spill cleanup may continue to be regulated under provisions of RCRA and require storage and disposal as hazardous waste. For major spills, see Section 1 for the Emergency contact; for further disposal measures, see Section 13.

**SECTION 7 – HANDLING AND STORAGE**

**Precautions for safe handling:** Avoid generating and do not breathe dust. Do not rely on your sight to determine if dust is in the air. Use adequate ventilation and/or dust collection methods to keep airborne levels below the exposure limits. Maintain and test ventilation and dust collection equipment. Use all available work practices to control dust exposures, such as water sprays. Do not permit dust to collect on walls, floors, sills, ledges, machinery, or equipment. Wear appropriate respiratory, eye and skin protection. Avoid contact with skin and eyes. Wash hands thoroughly after handling. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Hands and/or face should be

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washed before eating, drinking and smoking and at the end of the shift. Remove contaminated clothing and protective equipment before entering eating areas. Wash or vacuum clothing when becomes dusty.

**Conditions for safe storage, including any incompatibilities:** Store in original or approved alternative container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10 for details) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed. Protect chemical from atmospheric moisture.

**Storage stability:** Stable under normal conditions.

**Storage temperature:** 60 - 100°F (16 – 38°C)

Employee education and training in the safe use and handling of this product are required under the OSHA Hazard Communication Standard 29 CFR 1910.1200. Employees and consumers should be warned of health risks associated with product use. See Section 8 for additional information on hygiene measures.

### SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

**Control Parameters/Occupational exposure limit values:** Results are listed in Section 15.

**Appropriate engineering controls:** Good local and general ventilation and wet methods should be sufficient to control worker exposure to airborne contaminants below recommended exposure limits. Local exhaust may be required in some areas.

**Personal protective equipment:**

**Eye/face protection:**

When directly handling product, eye protection is required. Examples of eye protection include safety glasses with side shields or chemical goggles. Contact lenses should not be worn when working with this product. Dust can get under the lenses and cause abrasion of the cornea.

**Skin/body protection:**

Impervious gloves (nitrile butyl rubber, neoprene and PVC) should be worn when working with this product. Body should be covered with appropriate clothing (Tyvek apron, arm covers or full body suit) depending on the task being performed and the risks involved. Protective clothing should be selected and used in accordance with “Guidelines for the Selection of Chemical Protective Clothing” published by ACGIH. Wash contaminated clothing before reuse. Store work clothing separately. Appropriate footwear should be also selected based on the task being performed and the risks involved.

**Respiratory protection:**

Use local or general ventilation to control exposures below applicable exposure limits. When ventilation is inadequate, use either an atmosphere supplying respirator or NIOSH or OSHA approved air-purifying respirator for organic vapors. Respirator must be properly fitted and its selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Additional Protective Measures:** Educate and train employees in safe handling of this product. Follow all label instructions. As a general hygiene practice, wash hands and face after use. Emergency eyewash fountains and safety shower should be in close proximity as a matter of good practice.

### SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Solid, powder
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	Not applicable
<b>pH:</b>	Not available
<b>Melting point/ freezing point:</b>	Not available
<b>Initial boiling point and boiling range:</b>	Not available
<b>Flash point:</b>	Not applicable
<b>Evaporation rate:</b>	Not applicable
<b>Flammability (solid, gas):</b>	Not applicable
<b>Upper/ lower flammability or explosive limits:</b>	Not applicable
<b>Vapor pressure:</b>	Not applicable
<b>Vapor density:</b>	Not applicable
<b>Relative density:</b>	3.10-3.20
<b>Solubility (water):</b>	Insoluble
<b>Partition coefficient n-octanol/water:</b>	Not available
<b>Auto-ignition temperature:</b>	Not available
<b>Decomposition temperature:</b>	Not available
<b>Viscosity:</b>	Not applicable

**SECTION 10 – STABILITY AND REACTIVITY**

**Reactivity:** Product will not undergo hazardous polymerization. Corrosive effects to metal are not anticipated. Based on its structural properties the product is not classified as oxidizing.

**Chemical stability:** Stable under recommended storage conditions. Product is hygroscopic; contamination with moisture will negatively affect product performance.

**Conditions to avoid:** Unintentional contact with moisture, high humidity, generation of dust.

**Incompatible materials:** Strong oxidizing agents.

**Hazardous decomposition products:** Under normal conditions of storage and use, hazardous decomposition products should not be produced. In fire conditions, depending on temperature, air supply and presence of other materials, decomposition products can include, but are not limited to silica and oxides of metals present in the product.

**SECTION 11 – TOXICOLOGICAL INFORMATION**

**Likely Routes of Exposure:** Skin and Eye Contact, Inhalation and Ingestion.

**Symptoms of exposure:**

**Acute toxicity:**

**Oral:** May be harmful if swallowed. Adverse symptoms may include abdominal pain, nausea and diarrhea.

**Dermal:** May cause temporary irritation. Adverse symptoms may include redness.

**Inhalation:** May cause respiratory tract irritation and coughing.

**Skin corrosion / irritation:**

Contact with dust may cause mechanical irritation, drying of the skin and dermatitis. A more severe response may be expected if skin is abraded (scratched or cut).

**Serious eye damage / eye irritation:**

Causes eye irritation. Adverse symptoms: tearing and redness. Dust may cause abrasion of the cornea.

**Specific target organ toxicity, single exposure:**

This product contains components that are causing respiratory tract irritation after single exposure.

Iron Oxide Red, CAS #: 1309-37-1: May cause respiratory irritation.

**Aspiration hazard:** Not an aspiration hazard.

**Chronic toxicity:**

**Respiratory and Skin Sensitizer:**

This product does not contain components reported to be a respiratory or skin sensitizer.

**Germ cell mutagenicity:**

Risk to humans is not expected from exposure to this product.

**Carcinogenicity:**

Based on available info, this product does not contain ingredients known or reported to be carcinogenic by any reference by IARC, NTP, EPA, OSHA, ACGIH.

**Reproductive toxicity:**

Risk to humans is not expected from exposure to this product.

**Specific target organ toxicity, repeated exposure:**

Respiratory system, liver, blood.

**Medical conditions aggravated by overexposure:**

Respiratory system disorders (asthma, bronchitis, emphysema, chronic obstructive pulmonary disease), lungs, liver and blood diseases if product is handled without adequate protection.

**Toxicity test results:** Not available for mixture. Results for components, when available:

Components	Test Results
Mica, CAS #: 12001-26-2	<p><b>Acute Toxicity:</b> No effects known. Serious eye damage/eye irritation (Rabbit): mechanically irritating to eyes.</p> <p><b>Chronic Toxicity:</b> Germ cell mutagenicity: No data available. Carcinogenicity: some silica have shown to cause cancer. The risk of cancer from Mica is unknown. Reproductive toxicity: No data available. Smoking in combination with silica exposures increases the risk of cancer. STOT, RE: Respiratory system. Prolonged and repeated inhalation of dust can irritate the lungs and cause fibrosis (coughing, shortness of breath, weakness, exhaustion, weight loss).</p>
Iron Oxide, CAS #: 1309-37-1	<p><b>Acute Toxicity</b> Ingestion: May cause severe and permanent damage to the digestive tract, liver damage, hemorrhaging of the digestive tract. Causes severe pain, nausea, vomiting, diarrhea and shock. The toxicological properties of this substance have not been fully investigated. Inhalation: Dust is irritating to the respiratory tract. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest and muscle pain and increased white blood cell count. (Rat), 12hrs: LPTC: 50 mg/m<sup>3</sup>; Behavioral: Excitement, Fluid intake, diarrhea (Rat), 60hrs: LPTC: 50 mg/m<sup>3</sup>; Behavioral: Excitement, Fluid intake, diarrhea (Rat), 12hrs: LPTC: 0.8 mg/kg; Lung, Thorax, or Respiration: Emphysema; Enzyme inhibition, induction, or change in blood or tissue levels; Metabolism (intermediary): inflammation Subcutaneous (Dog): LPLD: 30 mg/kg. Skin corrosion/irritation: Causes skin irritation. Serious eye damage/eye irritation: Causes serious eye irritation.</p>

STOT, SE: May cause respiratory irritation.

Chronic toxicity

Carcinogenicity: IARC: Animal: No evidence; Human: Group 3 (Not Classifiable as to its Carcinogenicity to Humans) Inadequate Evidence (for Iron oxide dust and fume (as Fe)); ACGIH TLV, TWA: 5 mg/m<sup>3</sup> (respirable); Not classifiable as human carcinogen.

STOT, RE: Inhalation: Chronic inhalation may cause effects similar to those of acute inhalation.

(Rat), 24hrs/61days, continuous: LPTC: 500 µg/m<sup>3</sup>; Other degenerative changes; Changes in blood serum composition (e.g. TP, bilirubin, cholesterol); Enzyme inhibition, induction, or change in blood or tissue levels: True cholinesterase; Inhalation (Rat), 24hrs/60days, continuous: LPTC: 0.5 mg/m<sup>3</sup>; Changes in circulation; Liver changes; Vascular(blood flow);

\* LPTC=lowest published toxic concentration; LPLD=lowest published lethal dose

### SECTION 12 – ECOLOGICAL INFORMATION

**Ecotoxicity:** Not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**Persistence and degradability:** Not readily biodegradable by OECD criteria.

**Bioaccumulative potential:** No significant accumulation in organisms is expected.

**Mobility in soil:** Not expected.

**Other adverse effects:** Not known.

**Ecotoxicity test results:** Not available for the mixture and components.

### SECTION 13 – DISPOSAL CONSIDERATIONS

**Product Disposal:** The generation of waste should be avoided or minimized wherever possible. If product becomes a waste, it does not meet criteria of hazardous waste as defined in 40 CFR 261, Subpart C and D. Do not discharge into sewer system. Spill cleanup residues may still be subject to RCRA storage and disposal requirements. Dispose waste in compliance with local, state and federal regulations via licensed waste disposal contractor.

**Container disposal:** Even after emptying, container may retain residues. Containers should be completely emptied and safely stored until appropriately reconditioned or disposed through licensed contractor in accordance with government regulation.

This material and its container must be disposed of in a safe way.

### SECTION 14 – TRANSPORT INFORMATION

**Land transport, U.S. DOT:** Non-regulated

**Sea transport, IMDG:** Non-regulated

**Air transport, IATA/ICAO:** Non-regulated

### SECTION 15 – REGULATORY INFORMATION

**U.S. Regulations:**

**OSHA HCS:** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29CFR 1910.1200.

**TSCA Regulations:**

All components of this product are listed or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

**EPCRA Section 302 (40 CFR Part 355)** (Emergency Response Planning, Extremely Hazardous Substance):

No components are subject to the reporting.

**EPCRA Section 304 (40 CFR Part 355)** (Emergency Release Notification Requirements):

No components are subject to the reporting.

**EPCRA Sections 311 & 312** (Hazardous Chemical Inventory Reporting, Hazard Categories):

Acute Health Hazard, Chronic Health Hazard

**EPCRA Section 313 (40 CFR Part 372)** (Toxic Chemical Release Inventory Reporting):

No components or impurities of this product are present above De Minimis level and therefore do not require reporting.

**CERCLA Sections 102-103 (40 CFR Part 302)** (Hazardous Substances Release Notification):

No components are subject to the reporting.

**Clean Air Act:**

- Ozone Depleting Substances (ODS): This product does not contain and is not manufactured with ozone depleting substances.
- Hazardous Air Pollutants, OSHA, Section 112(b), Table Z-1 and Table Z-3:

Substance	Regulatory Limits			Recommended Limits		
	OSHA PEL		Cal/OSHA PEL	NIOSH REL	ACGIH® 2015 TLV®	
	mppcf	mg/m <sup>3</sup>	(as of 4/26/13) 8hrs TWA, mg/m <sup>3</sup>	(as of 4/26/13) Up to 10hrs TWA, mg/m <sup>3</sup>	8hrs TWA, mg/m <sup>3</sup>	
Mica, CAS #: 12001-26-2						
Silicates (less than 1% crystalline silica)	20	-	3 (resp.)	3 (resp.)	3 (resp.)	
Iron Oxide, CAS #: 1309-37-1	-	10 (fume)	5 (fume)	5 (dust and fume)	5 (resp.)	
Inert or Nuisance Dust	Total dust	50	15	10 (as PNOR)	See Appendix D	10
	Respirable fraction	15	5	5 (as PNOR)	See Appendix D	3
Particulates Not Otherwise Regulated (PNOR)	Total dust	-	15	10	-	-
	Respirable fraction	-	5	5	-	-

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mppcf – millions of particles per cubic foot; (C) - Ceiling; Ca – Potential occupational carcinogens; Appendix A, C and D refers to Appendixes of Hazardous Air Pollutants List, Section 112(b) of Clean Air Act

**NIOSH IDLH:** Mica, CAS #: 12001-26-2: 1,500 mg/m<sup>3</sup>

**Clean Water Act:** Section 307(a)(1): No components are subject to the reporting.  
Section 311(b): No components are subject to the reporting.

**NFPA rating:** Health: 2 Fire: 0 Reactivity: 0 Special: 0  
**HMIS rating:** Health: 2 Flammability: 0 Physical hazard: 0

**State Regulations:**

California Prop. 65 Components:

This product does not contain components known to State of California to cause cancer, birth defects, or any other reproductive harm.

Instruction: for regulatory information on components of this mixture, check the appropriate state websites.

**International Regulations/Inventories:**

Canadian Regulations: All ingredients of this product are listed or are exempt from the DSL.

WHMIS Classification (Controlled Products Regulations): Class D2B: Material causing other toxic effects

WHMIS Label Information:



**SECTION 16 – OTHER INFORMATION**

**LEGEND**

GHS	Globally Harmonized System
CAS	Chemical Abstracts Services
EC	European Community
EPA	Environmental Protection Agency
OSHA	Occupational Safety and Health Administration
ACGIH	American Conference of Governmental Industrial Hygienists
NIOSH	National Institute of Occupational Safety and Health
PEL	Permissible Exposure Limits
TLV	Threshold Limit Value
REL	Recommended Exposure Limit
TWA	Time-Weighted Average
STEL	Short-term exposure limit
HEPA	High Efficiency Particulate Air
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
STOT, SE	Specific Target Organ Toxicity following Single Exposure
STOT, RE	Specific Target Organ Toxicity following Repeated Exposure
DOT	Department of Transportation
IMDG	International maritime dangerous goods code
IATA, ICAO	International Air Transport Association, International Civil Aviation Organization
TSCA	Toxic Substances Control Act
EPCRA	Emergency Planning and Community Right-to-Know Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
RQ	Reportable Quantity
DSL	Domestic Substance List
WHMIS	Workplace Hazardous Materials Information System

**Latest revision date:** December 17, 2015 – Preparation of SDS in accordance to the GHS requirements

**Date of the previous revision:** Not available

**Disclaimer:** The data set forth in this sheet are based on information provided by the suppliers of the raw materials and chemicals used in the manufacture of the aforementioned product. Rhino Linings Corporation makes no warranty with respect to the accuracy of the information provided by their suppliers, and disclaims all liability of reliance thereof.