



INDUSTRIES 3R

MATERIAL SAFETY DATA SHEET

IDENTITY

Part Number: **3R 887F**
 Identity: Graphite laminated
 Description: Graphite/Flexible Graphite; stainless steel

SUPPLIER

Industries 3R inc.
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INGREDIENTS AND HAZARDS INFORMATION

Component	CAS #	% (by wt.)	ACGIH(TLV)	OSHA(PEL)
Flexible Graphite (C)	7782-42-5	15-95	2.0mg/m ³ respirable	2.5mg/m ³ respirable
316 Stainless Steel (Allow of Fe, Ni, Cr, Mo etc.)	N/D	5-85	N/D	N/D
Crystalline Silica	14808-60-7	<0.2	0.05mg/m ³ respirable	10mg/m ³ %SiO ₂ + 2 respirable

PHYSICAL/ CHEMICAL PROPERTIES DATA

Appearance: Black, solid shape
 Odour: None
 Chemical Family: Graphite: Carbon
 Boiling Point: N/A
 Melting Point: Stainless Steel: 2750 deg F
 Water Solubility: Insoluble
 Specific Gravity: 0.7-5.1 (Graphite 1.1, Steel 8.0)
 Vapor Pressure: N/A
 pH: N/A
 Vapor Density (Air=1): N/A
 % Volatile: N/A
 Molecular Formula: N/D

FIRE AND EXPLOSION DATA

NFPA Codes: Flammability: 0 Health: 1 Reactivity: 0 Special: 0

NFPA Unusual Hazards: None

Flammable Properties: None

Flash Point: None

Hazardous Decomposition Products: Thermal decomposition may product smoke and oxides of carbon.

Unusual Fire and Explosion Hazard: None

Extinguishing Media: Use extinguishing media suitable for type of surrounding fire. The product should be cooled with water.

STABILITY AND REACTIVITY DATA

Stability: Stable
Incompatibility: Strong oxidizing agent.
Conditions to avoid: None.
Hazardous Decomposition Products: See section *Fire and Explosion Data* for thermal decomposition material.
Hazardous Polymerization: N/A

FIRST AID MEASURES

Respiratory Tract Irritation: Move the person to a dust free location. Get medical attention if the irritation continues.
Eye Irritation: Flush with large amounts of water. Get medical attention if the irritation persists.
Skin Irritation: Wash area of contact thoroughly with soap and water. Get medical attention if irritation persists.
Gastrointestinal Irritation: Unlikely to happen. However, if gastrointestinal tract irritation develops, move the person to a dust free environment.

HEALTH HAZARD INFORMATION

Primary routes of entry: inhalation of dusts of the product, skin and eye contact with the product.
The product is not hazardous material in normal use. Dust from the product may be harmful if inhaled or contacted with skin or eyes.

Acute and Chronic Health Hazards:

Graphite: High concentration of graphite dust may be irritating to eyes, skin and respiratory tract. Inhalation of high concentration graphite dust over prolonged periods of time may cause pneumoconiosis.
Stainless steel: Inhalation of high concentration of respirable size stainless steel dust may cause influenza like illness (metal fume fever). Prolonged inhaled of high concentration of stainless steel dust may cause lung disease.
Other possible effects: Graphite debris and dusts are electrical conductive. Accumulations of graphite debris and dusts may cause shorting of electrical circuits.

EXPOSURE CONTROL/ PERSONAL PROTECTION

Exposure Limits:
OSHA PEL: See *Ingredients and Hazards Information*.
Mechanical Controls: Local exhaust ventilation, dust collection, and other equipment designed to minimize dust.

Personal Respiratory Protection Equipments

When exposure is above limit (see *Ingredients and Hazards Information*), half-facepiece, or full-facepiece air purifying respirator equipped with a NIOSH certified P95 particulate filter cartridge or PAPR with tight-fitting full facepiece is recommended depending on the exposure level.

Skin Protection:

Wear gloves to prevent cuts, abrasions and irritation during handling and processing.

Eye Protection:

If dusts or debris are generated during processing, wear safety glasses with side shields or other forms of eye protection in compliance with appropriate OSHA standards.

For more information, please contact manufacturer/supplier.

HANDLING AND STORAGE

Store in original container in a dry area. Keep container closed when not in use. Clean the work area with vacuum or wet sweeping to minimize the accumulation of debris and dusts.

ACCIDENTAL RELEASE MEASURES

Spill Procedures: Spill should be returned to the original container, or if not reusable, should be placed in container for disposal. Do not release the material to sewers.

DISPOSAL PROCEDURES

Approved landfill. This substance is not specifically listed as hazardous waste in federal regulations. For particular situation, check Federal definition 40 CFR 261 and State regulations. Check local, regional, state or provincial regulations to identify all applicable disposal requirements.

TOXICOLOGICAL/ ECOLOGICAL INFORMATION

Graphite: Oral LD₅₀ Rat > 5g/kg.

Ni and Cr in stainless steel have been identified as carcinogens or potential carcinogens by IARC and NTP.

Crystalline silica is listed as a known human carcinogen by IARC.

Bioaccumulation is unlikely.

Dusts from the product may have impact on air and water quality.

TRANSPORT INFORMATION

D.O.T. Shipping Name: Not regulated

OTHER INFORMATION

While the information and recommendations set forth herein are believed to be accurate, the manufacturer takes no warranty with respect thereto and disclaims all liability from reliance thereon.