

RULON® 488
MATERIAL SAFETY DATA SHEET

Ingredients and Exposure Limits	CAS Number	ACGIH TLV – TWA	OSHA PEL – TWA
Polytetrafluoroethylene	9002-84-0	NE	NE
Non-respirable fibers and particulate		15 mg/m ³ (total dust)	5 mg/m ³ (respirable)
Pigment < 1% by Wt		mg/m ³	mg/m ³
* Copper (as Cu)	7440-50-8	1.0 (dust) 0.2 (fume)	1.0 (dust) 0.1 (fume)
* Cobalt (as Co)	7440-48-4	0.02	0.10
* Chromium (as Cr)	7440-47-3	0.5	0.5
* Manganese (as Mn)	7440-02-0	0.2	5.0
* Zinc (Zn)	7440-66-6	NE	NE

Components not precisely identified are proprietary or non-hazardous.

All Components appear on TSCA

* Toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (SARA) and 40 CFR Part 372. Pigment is formed by high temperature calcination. Therefore, it does not necessarily have any of the properties of its component oxides or metals.

NE: None Established

PHYSICAL & CHEMICAL DATA

Turquoise solid plastic. Melting range 620-650 °F. Water Insoluble. Specific Gravity 2.25

FIRE, REACTIVITY DATA

Flash Point not applicable

Limited combustible material; self-ignition temperature 968-1040 °F.

Extinguishing Media: Foam, Dry chemical, CO₂

Fire fighters: Wear positive pressure, self-contained breathing apparatus (SCBA).

Dense, irritating smoke can be generated in a fire situation, leading to polymer fume fever.

Stable. No hazardous polymerization

Thermal Decomposition Products: CO, CO₂, HF, and potentially toxic fluorinated compounds >750 °F.

Incompatibles: Finely divided metal powders, potent oxidizers like fluorine (F₂) and related compounds.

(Continued)

HEALTH HAZARD DATA

No acute or chronic hazards are known for the solid, fully cured plastic.

Inhalation of fumes from overheating PTFE may cause polymer fume fever, a delayed, temporary flu-like illness with fever, chills, and sometimes cough, of approximately 24 hour duration.

Smokers should avoid contamination of tobacco products, and should wash their hands and face before smoking to reduce their opportunity for exposure to thermal decomposition products.

Dust or particles produced during handling of powder, grinding, fabricating, machining or processing of this material in any form could present general hazards of inert airborne particulate matter related to particle size, concentration, and years of exposure. Irritation of the nose, throat and lungs may be caused. Inhalation exposure effects include difficulty breathing or shortness of breath. Prolonged inhalation may cause lung injury. Skin or eye contact may result in mechanical irritation.

Persons with pre-existing lung diseases, asthma or other breathing difficulties may have more severe cases of polymer fume fever and increased susceptibility to the toxicity of excessive exposures. Skin disorders may be aggravated by exposure.

Not a listed carcinogen

PRECAUTIONS, SPILLS

Spills: Sweep up for disposal or recovery. Avoid dust generation. Spilled material is a slipping hazard.

Waste Disposal: Non-regulated material. Follow federal, state and local regulations.

Handling: Wash thoroughly with soap and water after handling. Avoid breathing dust. Avoid contamination of cigarettes or tobacco with dust.

Storing: Closed containers in clean, dry area.

CONTROLS, PROTECTION

AEL*: Polytetrafluoroethylene (PTFE) 10 mg/m³, 8 hour TWA, total dust
5 mg/m³, 8 hour TWA, respirable dust

Respirators: Operations involving powders, grinding, fabricating, machining or processing of this material in any form should be reviewed for levels of airborne particulates. Use NIOSH approved respirator to provide protection against dust or when exposure limits expect to be exceeded.

Ventilation: Use local exhaust to remove vapors and fumes during any hot processing and/or to control dust and airborne particles.

Personal Protection: Safety glasses with side shields recommended during powder handling or dust generating operations. Gloves and/or barrier cream. Adequate clothing to prevent skin contact.

During any hot processing, use face shield, heat resistant gloves, clothing and footwear. Maintain adequate ventilation. Avoid breathing fumes, vapors.

*AEL: Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits that are lower than the AEL are in effect, such limits shall take precedence.

FIRST AID & EMERGENCY PROCEDURES

Inhalation: If exposed to fumes from overheating or if difficulty in breathing occurs, move personnel to fresh air immediately. Consult a physician if necessary.

Skin: Washing thoroughly with soap and water after handling is recommended. If hot polymer gets on skin, cool rapidly with cold water. Do not peel polymer from skin. Get medical treatment for thermal burn.

Eyes: If material gets in eyes, flush with plenty of water for at least 15 minutes and consult a physician.

Ingestion: Not likely to be hazardous. Consult a physician if necessary.

DOT: Non-hazardous

DISCLAIMER

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