CARUS AIR



CARULITE® 110-TR CATALYST

FACT SHEET

CARULITE® 110-TR catalyst is used to effectively destroy volatile organic compounds (VOC) such as flexographic and rotogravure solvents. Although CARULITE 110-TR catalyst operates at low temperatures, (600° F (315° C)), it has an upper temperature stability limit of 1300° F (704° C), providing excellent process flexibility.

PARTICLE SIZES AVAILABLE

1-2 mm diameter sphere (nominal)
2-4 mm diameter sphere (nominal)

CHEMICAL/PHYSICAL DATA

Formula	Manganese/ copper oxide/ anthanum oxide catalyst
Appearance	Black/dark brown spheres
Surface Area	≥ 170 m^2/g
Weight Loss	< 3%
Upper Temperature Limit	1300° F (704° C)

SUGGESTED OPERATING CONDITIONS

- Vertically-oriented vessel with top-down air flow
- ≤ 15,000 hr^{-1} Gas Hourly Space Velocity
- ≥ 3 ft/sec (0.91 m/sec) Linear Velocity
- Minimum inlet temperatures 600° F (315° C)

APPLICATIONS

Flexographic and rotogravure printing
Metal decorating
Laminating plastic and paper
Coating chemical processes

CATALYST POISONS

Minimize or avoid contact with: sulfur compounds, halogenated compounds, heavy metals and silica.

SHIPPING CONTAINERS

CARULITE 110-TR catalyst is shipped in 20 kg net weight pails.

SHIPPING

CARULITE 110-TR catalyst is not regulated by the U.S. DOT.
CARULITE 110-TR catalyst is shipped domestically as Class 85 and internationally as HTS Code 3815.90.3000.

Proper Shipping Name: Manganese Dioxide Compound

HANDLING, STORAGE, AND INCOMPATIBILITY

Although CARULITE 110-TR catalyst is not a hazardous substance, it should be handled with care. Protective equipment in handling should include safety glasses or goggles and rubber or plastic gloves. In cases where high dust exposure may exist, the use of NIOSH-MSHA dust respirator or an air-supplied respirator is advised.

The product should be stored in a cool, dry area in a closed container. Segregate from easily-oxidizable materials, peroxides, chlorates, and acids. Protect container against physical damage. Spillage should be collected and disposed of properly.

DISPOSAL

Unused CARULITE 110-TR catalyst is not considered a hazardous waste under U.S. 40 CFR 261. Dispose of used CARULITE 110-TR catalyst in a landfill approved to accept chemical waste, after verifying that it is not contaminated with hazardous substances through usage.

CARUS VALUE ADDED

LABORATORY SUPPORT

Carus has technical assistance available to its potential and current customers to answer questions, evaluate applications alternatives or perform laboratory testing. Our laboratory capabilities include: catalyst analysis, performance testing, process evaluations, and analytical services.

TECHNICAL SERVICES

As an integral part of our technical support, Carus provides in-house and on-site assistance. We offer full application services, including technical expertise, design recommendations, and follow-up support.

CARUS

For over 98 years, our dedication to research and development, technical support, and customer service has enabled Carus to become the world leader in permanganate, manganese, and catalyst oxidation technologies. Call Carus for assistance with specific applications.

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