



CARULITE® 200 catalyst is used to effectively destroy ozone emitted from various off-gas emissions, converting toxic ozone to oxygen.

### PARTICLE SIZES AVAILABLE

- 4 x 8 mesh granular (4.8 mm x 2.4 mm)
- 8 x 14 mesh granular (2.4 mm x 1.4 mm)

### CHEMICAL/PHYSICAL DATA

<b>Formula</b>	Manganese dioxide/copper oxide catalyst
<b>Appearance</b>	Black/dark brown granular
<b>Bulk Density</b>	0.75-0.89 g/cc
<b>Surface Area</b>	≥ 200 m <sup>2</sup> /g
<b>Weight Loss</b>	< 1%

### SUGGESTED OPERATING CONDITIONS

- Vertically-oriented vessel with top-down air flow
- ≤ 5,000 hr<sup>-1</sup> Gas Hourly Space Velocity
- ≥ 2.2 ft/sec (0.66 m/sec) Linear Velocity
- In humid applications pre-heat the air prior to the catalyst bed ~15° F (9° C) above ambient temperature to prevent condensation of moisture on the surface of the catalyst.

### CATALYST POISONS

Minimize or avoid contact with: sulfur compounds, halogenated compounds, hydrocarbons, heavy metals, NO<sub>x</sub>, and silica.

### APPLICATIONS

- Potable water off-gas
- Wastewater off-gas
- Corona treater emissions
- Office equipment emissions
- Chemical processing emissions

### SHIPPING CONTAINERS

Dependent upon the mesh size required, the CARULITE 200 catalyst is shipped in 20 kg net weight pails or in 136 kg net weight drums.

### HANDLING, STORAGE, AND INCOMPATIBILITY

Although CARULITE 200 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 200 catalyst is not considered a hazardous waste under U.S. 40 CFR 261. Dispose of used CARULITE 200 catalyst in a landfill approved to accept chemical waste, after verifying that it is not contaminated with hazardous substances through usage.

### SHIPPING

CARULITE 200 catalyst is not regulated by the U.S. DOT. CARULITE 200 catalyst is shipped domestically as Class 85 and internationally as HTS Code 3815.90.3000.

Proper Shipping Name: Manganese Dioxide Compound

### 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 100 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.