CARULITE® 400 catalyst is used to effectively destroy ozone or adsorb various gases and odors after being coated onto a substrate. Metallic, ceramic and cellulose are typical substrates.

**CHEMICAL/PHYSICAL DATA**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>Type E (manganese dioxide catalyst)</td>
</tr>
<tr>
<td>pH, 10% solution</td>
<td>2.4-3.1</td>
</tr>
<tr>
<td>Appearance</td>
<td>Black/dark brown powder</td>
</tr>
<tr>
<td>Particle Size</td>
<td>3-8 micron</td>
</tr>
<tr>
<td>Surface Area</td>
<td>≥ 200 m²/g</td>
</tr>
<tr>
<td>Weight Loss</td>
<td>≤ 5% (3 hr @ 105° C)</td>
</tr>
</tbody>
</table>

**CATALYST POISONS**

When using the catalyst for ozone destruction, minimize or avoid contact with: sulfur compounds, halogenated compounds, hydrocarbons, heavy metals, NOx and silica, as these compounds will cause deactivation of the catalyst.

**APPLICATIONS**

- Office equipment ozone emissions
- Chemical processing emissions
- Indoor air quality
- Odor adsorbent

**SHIPPING CONTAINERS**

CARULITE 400 catalyst is shipped in 14 kg net weight pails and 90 kg net weight drums. Twenty-four pails can be shipped on a pallet for a net pallet weight of 336 kg and four drums can be shipped on a pallet for a net pallet weight of 360 kg.

**HANDLING, STORAGE, AND INCOMPATIBILITY**

Although CARULITE 400 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 400 catalyst is not considered a hazardous waste under U.S. 40 CFR 261. Dispose of used CARULITE 400 catalyst in a landfill approved to accept chemical waste, after verifying that it is not contaminated with hazardous substances through usage.

**SHIPPING**

CARULITE 400 catalyst is not regulated by the U.S. DOT. CARULITE 400 catalyst is shipped domestically as Class 85 and internationally as HTS Code 3815.90.3000.

**CARUS VALUE ADDED**

**LABORATORY SUPPORT**

Carus Corporation 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 CORPORATION**

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.