



International Carbon Black Association

Frequently Asked Questions- Carbon Black vs. Activated Carbon/Charcoal: Identification & Classification within IMDG

What is the difference between Carbon Black, Activated Carbon and Charcoal?

Carbon Black (HS Code 2803.00.00) is manufactured from mineral origin (petroleum and gas feedstocks.)

Activated Carbon (HS Code 3802) is derived from activated natural mineral products including coconut, coal, and animal bones.

Charcoal/Carbon (HS Code 4402) is a lightweight, black residue, consisting of Carbon and any remaining ash, obtained by removing water and other volatile constituents from animal and vegetation substances. Charcoal is usually produced by slow pyrolysis, which is the heating of wood or other organic substances in the absence of oxygen.

Does the International Maritime Dangerous Goods Code (IMDG) apply to Carbon Black (HS Code 2803.00.00)?

No! The provisions of the International Maritime Dangerous Goods Code (IMDG) **do not apply** to Carbon Blacks of mineral origin. Carbon blacks of mineral origin **do not meet** the criteria of a self-heating substance of Division 4.2 Packing Group assignments (Test method: U.N./TDGDOT 49 CFR 173.25 Class 4 Div. 4.2 Packing Group Assignments).

The IMDG exemption for Carbon Black of mineral origin is contained within IMDG Code Special Provision 925, under Part 3, Chapter 3.3, of the Code which states:

2. CARBON NOT SUBJECT TO THE PROVISIONS OF THE IMDG CODE

The provisions of the IMDG Code do not apply to non-activated Carbon blacks of mineral origin and Carbons made by a steam activation process.

IMDG Code Special Provision 925, under Part 3, Chapter 3.3, of the Code states:

IMDG Code Special Provision	
925	<p>The provisions of this Code do not apply to:</p> <ul style="list-style-type: none">- non-activated carbon blacks of mineral origin;- a consignment of carbon if it passes the tests for self-heating substances as reflected in the United Nations Manual of Tests and Criteria (see 33.3.1.3.3), and is accompanied by a certificate from a laboratory accredited by the competent authority, stating that the product to be loaded has been correctly sampled by trained staff from that laboratory and that the sample was correctly tested and has passed the test; and- carbons made by a steam activation process.

- Carbon black is NOT activated carbon or charcoal.
- Carbon black is NOT of animal nor vegetable origin.
- Carbon black is NOT made by a steam activation process.

Is Carbon Black of mineral origin considered self-heating?

No! Repeated testing has confirmed that Carbon Black of mineral origin is NOT a self-heating substance of Division 4.2

This result has been repeatedly confirmed by independent qualified laboratories testing Carbon Black of mineral origin to the standard established by UN/DOT Transportation Testing N.4 (Division 4.2)/Self-Heating Solids. Testing was performed by these labs on various ASTM grades of Carbon Black of mineral origin. Each of these tests have confirmed that Carbon Black of mineral origin is not self-heating.

Does the International Maritime Dangerous Goods Code (IMDG) apply to Activated Carbon and Charcoal?

Yes! Activated Carbons and Charcoal are commodities liable to spontaneous combustion and are thus classified 4.2 (substances liable to spontaneous combustion) in the IMDG Code.

IMDG Class	UN Number	Description
Class 4.2	UN 1361	CARBON animal or vegetable origin
Class 4.2	UN 1362	CARBON, ACTIVATED
Class 4.2	UN 3088	SELF-HEATING SOLID, N.O.S (technical name: Charcoal)

How do you identify Carbon Black?

Carbon Black can be identified by its HS Code 2803.00.00.

Manufacturers of Carbon Black (HS Code 2803.00) include the following International Carbon Black Association (ICBA) members:

- Birla Carbon
- Cabot Corporation
- Cancarb Limited
- Continental Carbon
- Imerys
- Orion Engineered Carbons LLC
- Tokai Carbon CB

For further reference please see: <https://www.carbon-black.org/>