



Sales Specifications of Dimethyl 2,6-Naphthalene Dicarboxylate (NDC) (CAS 840-65-3)

IVL's dimethyl 2,6-naphthalene dicarboxylate (NDC) is a difunctional aromatic ester that is typically used in the production of specialty polyester polymers. Incorporation of NDC into polyesters characteristically improves the thermal, barrier (both diffusional and UV penetration), mechanical, and weathering properties of the polymer and the fabricated products. These fabricated products include specialty films, high performance fibers, rigid packaging, as well as liquid crystal polymers and other engineering resins.

Table 1: NDC Product Sales Specifications

Property	Value	Test Method
Organic Purity ⁽¹⁾ (wt%)	>99.95	HPLC
Acid Number (mg KOH/g)	<0.02	HPLC
Color (APHA)	≤50	Colorimeter/Melt
Ash Oxide (ppm)	<2	Combustion
Foreign Particles (particles/g >1.5 microns)	<1200	Hiac Royco

¹ 100% minus impurities MeFNA (methyl 6-formyl-2-naphthoate), MM-NDC (monomethyl 2,6-naphthalene dicarboxylate), NDA (2,6-naphthalene dicarboxylic acid).

Shipping and Handling Information

NDC flakes are available in bulk polypropylene fabric type 'C' bags containing 700 kilograms. The bag dimensions are 35" x 38" x 46" (height). The bag, which is equipped with a polyethylene liner, has a fabric top fill spout, 14" diameter x 20" long, and a sealed fabric outlet spout, 14" diameter x 18" long. Typically, two bags are shipped on a pallet with shrink-wrapping, meaning that a standard 20' shipping container can carry 20 bags. During unloading the bags need to be properly grounded.

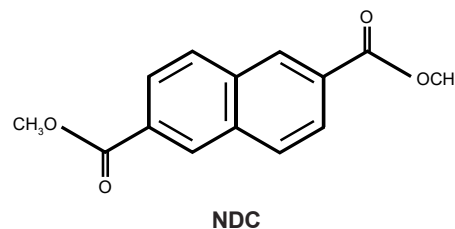
For an additional charge, NDC flakes are also available in polyethylene-lined fiber drums containing 125 kilograms. Drum dimensions are 22" diameter x 35" tall. Four drums may be shipped on a pallet with shrink-wrapping. A description of pallet loads is given in Table 2.

The product has been evaluated and does not require any hazard warning on the label under OSHA criteria. With regard to transportation, the DOT product shipping name is not regulated. NDC's Harmonized System (HS) code is 2917.39. Under US Export Administration Regulations (EAR), NDC is not on the Commerce Control List (CCL), thus is designated EAR99. Contact your Indorama Ventures PCL (IVL) representative for any additional information on product shipping.

Table 2: Shipping Weights for NDC

	Fabric Bag	Fiber Drums
Wt. per container, net	700 kg (1543 lb)	125 kg (275.6 lb)
Containers per pallet	2	4
Wt. per pallet, net	1400 kg (3086 lb)	500 kg (1102 lb)
Shipping wt. for freight rates	Actual weight	

Figure 1: Chemical Structure of NDC



Health and Safety Information

The product described herein may require precautions in handling and use because of toxicity, flammability, or other considerations. The available product health safety information for NDC is contained in the Safety Data Sheet (SDS) that may be obtained from your sales representative or by written request to the office address listed below. Before using any material a customer is advised to consult the SDS for the product under consideration for use.

For additional information, on samples, pricing and availability, please contact:

a) IVXP Inc

- i) 1401 Finley Island Rd.,
Decatur, AL, 35601 USA
- ii) Tel : +1 256 340 5200
- iii) Email : inquiry@ivxp.indorama.net

b) Auriga Polymers Inc

- i) 4235 South Stream Blvd.,
Charlotte, NC 28217 USA
- ii) Tel : +1 877 738 7527
- iii) Email : ctsusa@indorama.net

c) Indorama Ventures PCL

- i) 75/102 Ocean Tower 2, 37th Floor,
Sukhumvit Soi 19, Bangkok 10110 Thailand
- ii) Tel : +66 2 661 6661
- iii) Email : inquiry@ivxp.indorama.net

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