



ABC<sup>+</sup> (Anaerobic BioChem<sup>+</sup>) is used to promote both anaerobic biodegradation and reductive dechlorination of halogenated solvents in groundwater. ABC<sup>+</sup>, composed of ABC<sup>®</sup> (Anaerobic BioChem) and Zero Valent Iron (ZVI), is a mixture of lactates, fatty acids, and a phosphate buffer.

## CHEMICAL/PHYSICAL DATA

### Based on all components of ABC<sup>+</sup> combined

<b>Form</b>	Liquid
<b>Appearance</b>	Light yellow to colorless liquid
<b>Odor</b>	Slight to mild
<b>Specific Gravity</b>	1.8 g/mL
<b>pH</b>	6.0-8.0
<b>Freezing Point</b>	-34° C/ -30° F
<b>Boiling Point</b>	>400° C/ 752° F
<b>Vapor Pressure</b>	< 1 mm Hg
<b>Solubility in Water</b>	Fully soluble and miscible

## APPLICATIONS

ABC<sup>+</sup> is used for *in situ* treatment of organic groundwater contaminants by enhanced anaerobic processes. These types of contaminants include chlorinated solvents, some chlorinated aromatics, nitroaromatics, inorganics (nitrate and perchlorate), and metals (chromium).

## SHIPPING CONTAINERS

ABC<sup>+</sup> is shipped as three individual packages and mixed on site in the field: ABC, ZVI and guar (Guar is used to suspend ZVI during injection strategies. Guar is not required for *in situ* blending techniques.).

### ABC Shipping Containers:

**5-gallon pail (19-L)** Made of high-density polyethylene (HDPE). The net weight is 45 lbs (20.4 kg). The pail stands approximately 14.6 in (37.1 cm) tall. The diameter of the outside of the pail is 11.8 in (29.9 cm) wide at the top and 10.5 in (26.6 cm) at the base. (Domestic and international)

**55-gallon drum (208-L)** Made of high-density polyethylene (HDPE). The net weight is 500 lbs (226.7 kg). The drum stands approximately 35 in (88.9 cm) tall, has an outside diameter of 23 in (58.4 cm). (Domestic and international)

**275-gallon IBC (Intermediate Bulk Container) (1040-L).** The net weight is 2630 lbs (1192.9 kg). The IBC contains 260 gallons (984.2 L) of product. The IBC dimensions are 46 in (116.8 cm) high, 48 in (121.9 cm) long, and 40 in (101.6 cm) wide. The IBC has a 2 in (5.1 cm) butterfly valve with NPT threads in bottom sump. (Domestic and international)

## SHIPPING CONTAINERS

**330-gallon IBC (Intermediate Bulk Container) (1249-L).** The net weight is 3210 lbs (1456 kg). The IBC contains 320 gallons (1211.3 L) of product. The IBC dimensions are 53 in (134.6 cm) high, 48 in (121.9 cm) long, and 40 in (101.6 cm) wide. The IBC has a 2 in (5.1 cm) butterfly valve with NPT threads in bottom sump. (Domestic and international)

**Bulk Shipping-** Quantities up to 5000-gallons (18,927-L) are available. (Domestic only)

### ZVI Shipping Containers:

**25-kg bag (50-lb),** (Domestic and international)

**453-kg FIBC (Flexible Intermediate Bulk Container (1000-lb),** made of coated tubular woven polypropylene fabric, UV inhibitor treated. (Domestic and international)

**907-kg FIBC (Flexible Intermediate Bulk Container) (2000-lb),** made of woven plastic, coated with inner poly liner. (Domestic and international)

### Guar Shipping Containers:

**25-kg bag (50-lb),** (Domestic and international)

## HANDLING, STORAGE, AND INCOMPATIBILITY

Store in an area away from strong oxidants. Avoid storage times longer than 3 months to avoid break down to innocuous weak organic acids. Never return unused product to the storage container.

Fires may be controlled and extinguished by water spray, carbon dioxide, dry powder, aqueous film forming foams (AFFF), or foam. Refer to SDS or eSDS for more information. For first aid measures, refer to the SDS or eSDS for more information.