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Information Services



# Bromoboranes

BBr<sub>3</sub>

-BBr<sub>2</sub>

BBr

Bromoboranes are useful and versatile reagents. Without question the champion of this class is tribromoborane, commonly called boron tribromide, one of the most widely used and important Lewis acids in chemistry. Boron tribromide is a moisturesensitive liquid which is easily transferred under an inert atmosphere using standard cannula or syringe techniques. Aldrich offers neat BBr, in purities of 99.995%, 99.99% and 99 + %, and as 1.0M solutions in hexanes and dichloromethane. Boron tribromide is also available in solid form as the methyl sulfide complex, BBr3 • SMe2.

Other bromoboranes may be regarded as derivatives of BBr; and several of these reagents have come to prominence in

recent years. Some interesting examples are shown below. Cleavage of Protecting Groups: NH<sub>2</sub> (ref. 1). NHCO<sub>2</sub>BzI 83% (ref. 1) r.t., 0.5h Me<sub>2</sub>BBr 2 (ref. 2) -78° C, 1h

### Ketal/Ether Cleavage:

#### **Bromoboration:**

#### (E)- and (Z)-Vinyl Halides:

#### Insect Pheromone Application:

$$n \cdot C_{11}H_{23}CH = CH_2 = \frac{1) \cdot 4}{2) \cdot 0.25M \text{ LAH}} \qquad n \cdot C_{13}H_{27} - B = \frac{1) \cdot A_{27}}{3 \cdot 1 \cdot C_8H_{17}C \equiv CH} = \frac{1) \cdot A_{27}}{n \cdot C_8H_{17}} \qquad (ref. 7)$$

For more information on these useful products, please consult the Aldrich Catalog/Handbook or call us.

#### References:

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- 2) Guindon, Y.; Yoakim, C.; Morton, H.E. J. Org. Chem. 1984, 49, 3912.
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- 4) Hara, S.; Dojo, H.; Takinama, S.; Suzuki, A. ibid. 1983, 24, 731.
- Hara, S.; Satoh, Y.; Ishiguro, H.; Suzuki, A. *ibid.* 1983, 24, 735.
  Brown, H.C.; Somayaji, V. *Synthesis* 1984, 919.
  Brown, H.C.; Basovaiah, D. *J. Org. Chem.* 1982, 47, 3806.

30,416-6 B-Bromocatecholborane, 97% (1) 10g \$14.50 50g \$47.00

Bromodimethylborane (2) 5g \$29.00; 25g \$116.00 30.330-5 B-Bromo-9-BBN, 1.0M in CH<sub>2</sub>Cl<sub>2</sub> (3) 100ml \$19.65

(Packaged in Sure/Seaf™ bottles) 800ml \$95.60

25,663-3 B-Bromo-9-BBN, 1.0M in CH<sub>2</sub>Cl<sub>2</sub> (3) 200ml \$54.45 (Packaged in Sure/Pac™ metal cylinder)

25,510-6 Dibromoborane-methyl sulfide complex (4)

100g \$68.95

26,205-6 Dibromoborane-methyl sulfide complex,

1.0M in CH2Cl2 (4) 100ml \$18.60; 800ml \$96.75

25,509-2 Monobromoborane-methyl sulfide complex

100g \$68.95

26,206-4 Monobromoborane-methyl sulfide complex,

1.0M in CH<sub>2</sub>Cl<sub>2</sub> 100ml \$18.80; 800ml \$96.95

25g \$30.25 23,036-7 Boron tribromide, 99.995%

100g \$90.25; 1kg \$650.25 25g \$17.35; 100g \$43.85 20,220-7 Boron tribromide, 99.99%

250g \$68.65; 2kg \$464.95

32,511-2 Boron tribromide, 99 + % 25g \$12.50; 100g \$32.00

21,122-2 Boron tribromide, 1.0M in CH<sub>2</sub>Cl<sub>2</sub> 100ml \$23.55

800ml \$115.45

Boron tribromide, 1.0M in hexanes 100ml \$20.65

21,123-0 800ml \$103.25

Boron tribromide-methyl sulfide complex, 97% 24,737-5

25g \$19.15; 100g \$47.95

Boron tribromide-methyl sulfide complex,

100ml \$23.75; 800ml \$127.75

32,880-4 Bromodiethylborane, 1.0M in CH<sub>2</sub>Cl<sub>2</sub> 100ml \$28.50 500ml \$76.00

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