



Designation: D 6368 – 002

Standard Specification for Vapor-Degreasing Grade and General Grade *normal*-Propyl Bromide¹

This standard is issued under the fixed designation D 6368; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This specification covers vapor-degreasing grade and general solvent grade *normal*-propyl bromide (*n*PB). High-purity grades of *n*PB are available but should not be evaluated by this specification.

1.2 Blends and azeotropic mixtures of *n*PB for vapor-degreasing and general solvent grades should be blended from *n*PB meeting this specification.

¹ This specification is under the jurisdiction of ASTM Committee D-26 on Halogenated Organic Solvents and Fire Extinguishing Agents and is the direct responsibility of Subcommittee D26.02 on Vapor Degreasing.

Current edition approved ~~Jan.~~ Dec. 10, 2000². Published ~~April 2000~~ February 2003. Originally ~~published as D 6368-99~~ approved in 1999. Last previous edition approved in 2000 as D 6368 – 9900.

NOTE 1—Practices D 3844 and D 4276 and MNL2² provide additional important information on vapor degreasing and solvent properties.

2. Referenced Documents

2.1 ASTM Standards:

- D 1078 Test Method for Distillation Range of Volatile Organic Liquids³
- D 2108 Test Method for Color of Halogenated Organic Solvents and Their Admixtures (Platinum-Cobalt Scale)⁴
- D 2109 Test Methods for Nonvolatile Matter in Halogenated Organic Solvents and Their Admixtures⁴
- D 2111 Test Methods for Specific Gravity of Halogenated Organic Solvents and Their Admixtures⁴
- D 2251 Test Method for Metal Corrosion by Halogenated Organic Solvents and Their Admixtures⁴
- D 2942 Test Method for Total Acid Acceptance of Halogenated Organic Solvents (Nonreflux Method)⁴
- ~~D 2943 Test Method for Aluminum Scratch of 1,1,1-Trichloroethane⁴~~
- ~~D 2989 Test Method for Acidity-Alkalinity of Halogenated Organic Solvents and Their Admixtures⁴~~
- D 3401 Test Methods for Water in Halogenated Organic Solvents and Their Admixtures⁴
- D 3741 Test Method for Appearance of Admixtures Containing Halogenated Organic Solvents⁴
- D 3844 Practice for Labeling Halogenated Hydrocarbon Solvent Containers⁴
- D 4276 Practice for Confined Area Entry⁴
- D 4755 Test Method for Free Halogens in Halogenated Organic Solvents and Their Admixtures⁴
- D 6505 Test Method for Assay of *normal*-Propyl Bromide Content⁴

2.2 Other Documents:⁵

- 29 CFR 1919.1200 Department of Labor, OSHA Regulations on Hazard Communications⁵
- 49 CFR 100 to 199 Department of Transportation Hazardous Materials Regulations

3. Properties

3.1 Vapor degreasing grade and general solvent grade *normal*-propyl bromide shall conform to the requirements prescribed in Table 1. The metal corrosion tests described in Test Method D 2251 (test at reflux temperature only) shall be performed with aluminum (Al 1100). It is recommended, but not a requirement of this specification, that this test also be carried out by the end user on all metal alloys expected to contact the solvent during the intended storage and use.

4. Packaging

4.1 Industrial or commercial quantities shall be packaged and labeled in accordance with DOT regulations as found in 49 CFR 100 to 199 and state and local regulations, and with OSHA Regulations found in 29 CFR 1910.1200.

² *Manual on Vapor Degreasing, MNL2*, Third Edition, ASTM.

³ *Annual Book of ASTM Standards*, Vol 06.04.

⁴ *Annual Book of ASTM Standards*, Vol 15.05.

⁵ The *Code of Federal Regulations* may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

TABLE 1 Properties

Property	Specification	Test Method
Specific gravity, 25/25°C	1.320 to 1.350	D 2111
Distillation range (760 mm Hg)		D 1078
Initial boiling point, °C, min	70.0	
Dry point, °C, max	88.0	
Acidity (as HCl), weight %, max	0.0010	D 2989
Alkalinity (as NaOH), weight %, max	0.020	D 2989
Water, weight %, max	0.0150	D 3401
Appearance	clear and free from suspended matter	D 3741
Color, APHA, max	15	D 2108
Free halogen	passes test	D 4755
Nonvolatile residue, weight %, max	0.0010	D 2109
Acid acceptance (as NaOH), weight %, min	0.15	D 2942
Aluminum scratch	passes test	D 2943
Aluminum corrosion at reflux	no evidence of tarnish or corrosion when compared with a similar untested strip	D 2251
<i>normal</i> -propyl bromide content, weight %, min	93	GC
<i>iso</i> -propyl bromide content, weight %, max	0.1	GC

5. Keywords

5.1 *normal*-propyl bromide; 1-bromopropane; vapor-degreasing solvent

ASTM International takes no position respecting the validity of any patent rights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, are entirely their own responsibility.

This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM International Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, at the address shown below.

This standard is copyrighted by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, United States. Individual reprints (single or multiple copies) of this standard may be obtained by contacting ASTM at the above address or at 610-832-9585 (phone), 610-832-9555 (fax), or service@astm.org (e-mail); or through the ASTM website (www.astm.org).