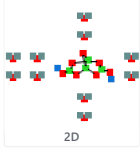


Bórax


PubChem CID	16211214
Estructura	 2D Encuentra estructuras similares
Sinónimos	1303-96-4 Bórax Bórax (B ₄ Na ₂ O ₇ ·10H ₂ O) Bórax decahidratado BORATO DE SODIO, DESCAHIDRATO <input type="button" value="Más..."/>
Fórmula molecular	B ₄ O ₇ Na ₂ · 10H ₂ O o B ₄ H ₂₀ Na ₂ O ₁₇
Peso molecular	381,4 g / mol

[Más Información Sobre El Proyecto LCSS >](#)

1 Clasificación GHS



Mostrando 1 de 4 Ver más

Pictograma (s)	 Health Hazard
Señal	Peligro
Declaraciones de peligro GHS	H360FD: Puede perjudicar la fertilidad; Puede dañar al feto [Peligro Toxicidad para la reproducción]
Códigos de declaración de precaución	P201, P202, P281, P308 + P313, P405 y P501 (La declaración correspondiente a cada código P se puede encontrar en la página de Clasificación GHS).

► [REGLAMENTO DE LA UE \(CE\) No 1272/2008](#)

2 identificadores



2.1 CAS



1303-96-4

► ChemIDplus; EPA Chemicals bajo TSCA; EPA DSSTox; Agencia Europea de Sustancias y Preparados Químicos (ECHA); Banco de datos de sustancias peligrosas (HSDB); Tarjetas internacionales de seguridad de las sustancias qu

71377-02-1

► Agencia Europea de Sustancias y Preparados Químicos (ECHA)

2.2 InChI



InChI = 1S / B4O7.2Na.10H2O / c5-1-7-3-9-2 (6) 10-4 (8-1) 11-3 / h; ; 10 * 1H2 / q-2; 2 * + 1

Calculado por InChI 1.0.5 (versión PubChem 2019.06.18)

► PubChem

2.3 Tecla InChI



CDMADVZSLOHIFP-UHFFFAOYSA-N

Calculado por InChI 1.0.5 (versión PubChem 2019.06.18)

► PubChem

3 propiedades físicas



3.1 Descripción física



Mostrando 2 de 4 Ver más

Polvo seco; PelletsGrandes Cristales

- ▶ Sustancias químicas de la EPA bajo la TSCA

CRISTALES BLANCOS O POLVO CRISTALINO.

- ▶ Tarjetas internacionales de seguridad química de la OIT (ICSC)

3.2 Olor



Inodoro

NIOSH. NIOSH Pocket Guide to Chemical Hazards. Department of Health & Human Services, Centers for Disease Control & Prevention. National Institute for Occupational Safety & Health. DHHS (NIOSH) Publication No. 2010-168 (2010). Available from: <http://www.cdc.gov/niosh/npg>

- ▶ Hazardous Substances Data Bank (HSDB)

3.3 Boiling Point



608°F

- ▶ Occupational Safety and Health Administration (OSHA); The National Institute for Occupational Safety and Health (NIOSH)

3.4 Melting Point



75 °C (decomposes)

Haynes, W.M. (ed.). CRC Handbook of Chemistry and Physics. 94th Edition. CRC Press LLC, Boca Raton: FL 2013-2014, p. 4-91

- ▶ Hazardous Substances Data Bank (HSDB)

167°F

- ▶ Occupational Safety and Health Administration (OSHA); The National Institute for Occupational Safety and Health (NIOSH)

3.5 Solubility



Showing 2 of 7 View More

In **water**, 5.93X10+4 mg/L at 25 °C

PMID:2205893

Shiu WY et al; Rev Environ Contam Toxicol 116: 15-187 (1990)

- ▶ Hazardous Substances Data Bank (HSDB)

3.17 g/100 g **water** at 25 °C

Haynes, W.M. (ed.). CRC Handbook of Chemistry and Physics. 94th Edition. CRC Press LLC, Boca Raton: FL 2013-2014, p. 4-91

- ▶ Hazardous Substances Data Bank (HSDB)

3.6 Density



Showing 2 of 3 View More

1.73 g/cu cm

Haynes, W.M. (ed.). CRC Handbook of Chemistry and Physics. 94th Edition. CRC Press LLC, Boca Raton: FL 2013-2014, p. 4-91

- ▶ Hazardous Substances Data Bank (HSDB)

Relative density (**water** = 1): 1.7

- ▶ ILO International Chemical Safety Cards (ICSC)

3.7 Vapor Pressure



Approximately 0 mm Hg

NIOSH. NIOSH Pocket Guide to Chemical Hazards. Department of Health & Human Services, Centers for Disease Control & Prevention. National Institute for Occupational Safety & Health. DHHS (NIOSH) Publication No. 2010-168 (2010). Available from: <http://www.cdc.gov/niosh/npg>

- ▶ Hazardous Substances Data Bank (HSDB)

0 mmHg (approx)

- ▶ Occupational Safety and Health Administration (OSHA); The National Institute for Occupational Safety and Health (NIOSH)

3.8 Decomposition



When heated to decomposition it emits toxic fumes of /sodium oxide and boron/.

Lewis, R.J. Sr. (ed) Sax's Dangerous Properties of Industrial Materials. 11th Edition. Wiley-Interscience, Wiley & Sons, Inc. Hoboken, NJ. 2004., p. 3234

▶ [Hazardous Substances Data Bank \(HSDB\)](#)

3.9 Corrosivity



Solutions are not a corrosion hazard to ferrous metals.

Weed Science Society of America. Herbicide Handbook. 5th ed. Champaign, Illinois: Weed Science Society of America, 1983., p. 64

▶ [Hazardous Substances Data Bank \(HSDB\)](#)

4 Toxicity Data



4.1 Human Toxicity Values



/OTHER TOXICITY INFORMATION/ Fatal doses for humans are variously estimated to be 5 to 6 g for children and 10 to 25 g for adults.

Clayton, G. D. and F. E. Clayton (eds.). *Patty's Industrial Hygiene and Toxicology: Volume 2A, 2B, 2C. Toxicology. 3rd ed.* New York: John Wiley Sons, 1981-1982., p. 3059

▶ [Hazardous Substances Data Bank \(HSDB\)](#)

4.2 Non-Human Toxicity Values



LD50 Rat oral 396-689 mg boron/kg

USEPA: *Health Advisory for Boron (Draft) p.5 (1988)*

▶ [Hazardous Substances Data Bank \(HSDB\)](#)

LD50 Rat oral 5.66 g/kg (SRP: 5,660 mg/kg)

O'Neil, M.J. (ed.). *The Merck Index - An Encyclopedia of Chemicals, Drugs, and Biologicals.* Cambridge, UK: Royal Society of Chemistry, 2013., p. 1595

▶ [Hazardous Substances Data Bank \(HSDB\)](#)

LD50 Mouse oral 2000 mg/kg

Lewis, R.J. Sr. (ed) *Sax's Dangerous Properties of Industrial Materials. 11th Edition.* Wiley-Interscience, Wiley & Sons, Inc. Hoboken, NJ. 2004., p. 3234

▶ [Hazardous Substances Data Bank \(HSDB\)](#)

LD50 Mouse ip 2711 mg/kg

Lewis, R.J. Sr. (ed) *Sax's Dangerous Properties of Industrial Materials. 11th Edition.* Wiley-Interscience, Wiley & Sons, Inc. Hoboken, NJ. 2004., p. 3234

▶ [Hazardous Substances Data Bank \(HSDB\)](#)

LD50 Mouse iv 1320 mg/kg

Lewis, R.J. Sr. (ed) *Sax's Dangerous Properties of Industrial Materials. 11th Edition.* Wiley-Interscience, Wiley & Sons, Inc. Hoboken, NJ. 2004., p. 3234

▶ [Hazardous Substances Data Bank \(HSDB\)](#)

LD50 Guinea pig oral 5330 mg/kg

Lewis, R.J. Sr. (ed) *Sax's Dangerous Properties of Industrial Materials. 11th Edition.* Wiley-Interscience, Wiley & Sons, Inc. Hoboken, NJ. 2004., p. 3234

▶ [Hazardous Substances Data Bank \(HSDB\)](#)

LD50 Rabbit skin >10,000 mg/kg

Tomlin CDS, ed. *Borax (1303-96-4). In: The e-Pesticide Manual, 13th Edition Version 3.0 (2003-04).* Surrey UK, British Crop Protection Council.

▶ [Hazardous Substances Data Bank \(HSDB\)](#)

LC50 Rat inhalation >2 mg/cu m for 4 hr

Bingham, E.; Cohrssen, B.; Powell, C.H.; *Patty's Toxicology Volumes 1-9 5th ed.* John Wiley & Sons. New York, N.Y. (2001), p. V3 533

▶ [Hazardous Substances Data Bank \(HSDB\)](#)

LD50 Rabbit dermal >2000 mg/kg

Report of the Food Quality Protection Act (FQPA) Tolerance Reassessment Eligibility Decision (TRED) for Boric Acid/Sodium Borate Salts. Available from, as of March 11, 2014.
http://www.epa.gov/oppsrrd1/REDS/boric_acid_tred.pdf

▶ [Hazardous Substances Data Bank \(HSDB\)](#)

LD50 Rat female oral 4980 mg/kg

Report of the Food Quality Protection Act (FQPA) Tolerance Reassessment Eligibility Decision (TRED) for Boric Acid/Sodium Borate Salts. Available from, as of March 11, 2014.
http://www.epa.gov/oppsrrd1/REDS/boric_acid_tred.pdf

▶ [Hazardous Substances Data Bank \(HSDB\)](#)

LD50 Dog oral >974 mg/kg

Report of the Food Quality Protection Act (FQPA) Tolerance Reassessment Eligibility Decision (TRED) for Boric Acid/Sodium Borate Salts. Available from, as of March 11, 2014.
http://www.epa.gov/oppsrrd1/REDS/boric_acid_tred.pdf

▶ [Hazardous Substances Data Bank \(HSDB\)](#)

LD50 Rat (male) oral 4550 mg/kg

Report of the Food Quality Protection Act (FQPA) Tolerance Reassessment Eligibility Decision (TRED) for Boric Acid/Sodium Borate Salts. Available from, as of March 11, 2014.
http://www.epa.gov/oppsrrd1/REDS/boric_acid_tred.pdf

▶ [Hazardous Substances Data Bank \(HSDB\)](#)