

Product Information Bulletin

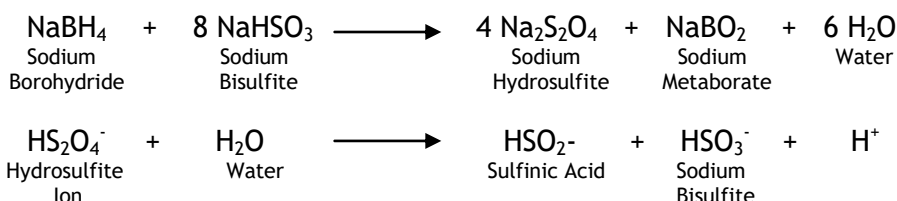
MontTex 1240[®]

Sodium Borohydride Solution

MontTex 1240 solution is a stable nonflammable aqueous solution of sodium borohydride (NaBH₄) and caustic soda (sodium hydroxide, NaOH), used by the textile industry in the on-site generation of sulfinic acid (-SO₂H), a reductant for dyeing, stripping, or clearing application where sodium hydrosulfite is used. The all liquid system automatically produces a reductant solution on demand, and provides the user with a readily available source of fresh reductant containing minimal quantities of corrosive decomposition products commonly seen in merchant sodium hydrosulfite products.

Sulfinic Acid Production

Sulfinic Acid is produced by the continuous reduction of sodium bisulfite with sodium borohydride, based on the following reactions:



The sodium bisulfite required for the process can be obtained from outside merchant sources as a sodium metabisulfite 99% powder or as a 38% aqueous solution.

The optimum chemical ratio is one part of **MontTex 1240 solution** to 3.5 -3.7 parts of sodium metabisulfite powder or 10 - 11 parts of 38% sodium bisulfite solution to replace four parts of sodium hydrosulfite. The two components should be pre-diluted separately using a suggested 1:10 ratio with water and then mixed together in a ventilated mix tank. The reductant solution may be stored or used on demand to replace sodium hydrosulfite in any textile dyeing, stripping, or clearing application.

All materials used in the reductant generation process are stable liquids, delivered in drums, totes or bulk, therefore operator attention to the process and the hazards of handling merchant sodium hydrosulfite powder are minimized.

Physical Properties

Sodium Borohydride	12 ± 0.2%
Sodium Hydroxide	40 ± 2.0%
Freezing Point	13 °C (55 °F)
pH	14.0+
Density	@ 23 °C 1.4 gm/cc
	@ 73 °F 11.7 lbs/gal

Storage and Handling

MontTex 1240 solution is extremely stable, undergoing minimal decomposition during long term storage, and should be stored and handled following standard procedures for caustic soda (sodium hydroxide) solution. Contact with aluminum and other materials which react with sodium hydroxide solutions should be prevented. Contact with acids or acidic materials should be avoided. Ventilate spill areas and flush with large quantities of water, per Material Safety Data Sheet instructions.

Shipping Information

MontTex 1240 solution is available for bulk shipment in 4,000 gal. tank trucks, 275 gallon tote bins, and 55 gallon plastic drums. Other packaging is also available to meet specific customer requirements.

Technical Assistance

On-site customer technical support and assistance for all aspects of **MontTex 1240 solution** usage and handling, including product transport and storage, bleach generation unit design, fabrication, startup, calibration, service, and economic analysis is available to all **MontTex 1240 solution** customers. Plants presently using merchant sodium hydrosulfite liquid or powder, or sodium borohydride for textile application, are encouraged to contact Montgomery Chemicals to discuss full scale plant trials of **MontTex 1240 solution**.

Contact Montgomery Chemicals for complete product information, including suggested safety, handling, and storage procedures, transportation designations, and Material Safety Data Sheets. The material contained herein is believed to be accurate; however no warranty or guarantee is made as to accuracy or completeness. Nothing contained herein is to be construed as permission to infringe on any patent or license. Determination as to suitability of this product for a particular application is solely the responsibility of the user.

Montgomery Chemicals, LLC

901 Conshohocken Road, Conshohocken, PA 19428
Phone 706-467-9106 Fax 706-467-3197 Email: sales@montchem.com

Revised: Oct-2015