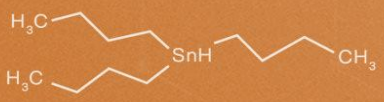
# TRIBUTYLTIN HYDRIDE (STABILIZED WITH BHT)




## FEATURED PRODUCT

## Tributyltin Hydride (Stabilized with BHT)

**INTRODUCTION:**

Tributyltin Hydride (TBT-H) stabilized with BHT (butylated hydroxytoluene) is a tin-based organometallic compound commonly used in organic synthesis, especially in radical reactions. It is air-sensitive and decomposes to tributyltin oxide in presence of oxygen and light. It works by donating a hydrogen radical (H·) to a carbon radical intermediate.

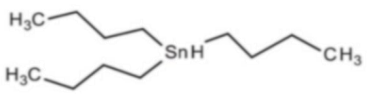
**MANUFACTURE:**

Synthesis involves two common methods of reduction reactions.

**Reduction of Tributyltin Oxide** with polymethylhydrosiloxane

**Reduction of Tributyltin Chloride** using lithium aluminum hydride.

The crude product is further purified by distillation process.

| | |
|---|---|
| **Synonyms** | Tributylstannane; Tri-n- butyltin hydride, SnBu3H |
| **CAS no.** | 688-73-3 |
| **EINECS no.** | 211-704-4 |
| **Molecular formula** | $C_{12}H_{28}Sn$ |
| **Molecular weight** | 291.06 |
| **Structure** |  |



**APPLICATIONS:**

(TBT-H) is a versatile reagent used in organic synthesis, particularly in radical dehalogenation and radical cyclization reactions.

- Tributyltin hydride is a key reagent in radical reactions, acting as a hydrogen source for various transformations.
- It can reduce organic halides to alkanes through a radical chain mechanism.
- Used to deprotect highly stable N-sulfonamides to the respective amides under mild conditions.
- As a reagent of choice for hydrostannylation reactions, where it can add a tin atom to an alkyne.
- Also used in aryl radical cyclization reactions.
- It finds applications in the pharmaceutical industry as a synthetic reagent.

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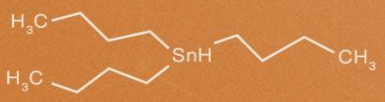


## FEATURED PRODUCT

**SPECIFICATIONS – USP:**

| Test | Unit | Specification |
|---|---|---|
| Description | - | Clear, slightly hazy colorless to pale yellow color liquid |
| Solubility | - | Miscible with Isopropyl Alcohol and Tetrahydrofuran |
| Weight per ml (At 25 °C ± 1) | g/ml | 1.070 – 1.090 |
| Chromatographic Purity (By GC) (Without BHT) | % Area | NLT 96.0 |

**STORAGE & PRECAUTION:**
Store between 2-8°C temperature under Nitrogen atmosphere. Keep the container tightly closed in a dry and well-ventilated place.
Shipped under temperature-controlled conditions.

**PACKING:**
50 Kgs Composite drums.

ICS offers 2,2,2-Trifluoroethyl Methacrylate (TFEMA) in commercial quantities and welcomes your inquiries. No matter the quantity you need, our exceptional quality & services will make ICS your supplier of choice. For additional information or Safety Data Sheet (SDS), please contact us at- info@itsusainc.com or Phone# 713-337-0152.

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