

1 Identification

Product identifier

Product name: Bis(tri-n-butyltin) oxide

Stock number: L02588

CAS Number:

56-35-9

EC number:

200-266-0

Index number:

050-008-00-3

Relevant identified uses of the substance or mixture and uses advised against.

Identified use: SU24 Scientific research and development

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Alfa Aesar

Thermo Fisher Scientific Chemicals, Inc.

30 Bond Street

Ward Hill, MA 01835-8099

Tel: 800-343-0660

Fax: 800-322-4757

Email: tech@alfa.com

www.alfa.com

Information Department: Health, Safety and Environmental Department

Emergency telephone number:

During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789.

2 Hazard(s) identification

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)



GHS06 Skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 3 H311 Toxic in contact with skin.



GHS08 Health hazard

Repr. 1B H360 May damage fertility or the unborn child.

STOT RE 1 H372 Causes damage to the kidneys, the liver, the respiratory system, the blood, the endocrine system and the immune system through prolonged or repeated exposure. Route of exposure: Oral, Inhalative.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Hazards not otherwise classified No information known.

Label elements

GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)

Hazard pictograms



GHS06 GHS08

Signal word

Danger

Hazard statements

H301+H311 Toxic if swallowed or in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H360 May damage fertility or the unborn child.

H372 Causes damage to the kidneys, the liver, the respiratory system, the blood, the endocrine system and the immune system through prolonged or repeated exposure. Route of exposure: Oral, Inhalative.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

P309 IF exposed or if you feel unwell:

P310 Immediately call a POISON CENTER/doctor/...

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

WHMIS classification

D1A - Very toxic material causing immediate and serious toxic effects

D2A - Very toxic material causing other toxic effects



Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

HEALTH 2 Health (acute effects) = 2

FIRE 1 Flammability = 1

REACTIVITY 1 Physical Hazard = 1

Product name: Bis(tri-n-butyltin) oxide	
Other hazards Results of PBT and vPvB assessment	
(Contd. of page 1)	
PBT:	
56-35-9	Bis(tri-n-butyltin) oxide
vPvB: Not applicable.	
3 Composition/information on ingredients	
Chemical characterization: Substances	
CAS# Description:	
56-35-9 Bis(tri-n-butyltin) oxide	
Identification number(s):	
EC number: 200-268-0	
Index number: 050-008-00-3	
4 First-aid measures	
Description of first aid measures	
General information	
Immediately remove any clothing soiled by the product.	
In case of irregular breathing or respiratory arrest provide artificial respiration.	
After inhalation	
Supply fresh air. If required, provide artificial respiration. Keep patient warm.	
Seek immediate medical advice.	
After skin contact	
Immediately wash with water and soap and rinse thoroughly.	
Seek immediate medical advice.	
After eye contact	
Rinse opened eye for several minutes under running water. Then consult a doctor.	
After swallowing	
Do not induce vomiting; immediately call for medical help.	
Information for doctor	
Most important symptoms and effects, both acute and delayed	
No further relevant information available.	
Indication of any immediate medical attention and special treatment needed	
No further relevant information available.	
5 Fire-fighting measures	
Extinguishing media	
Suitable extinguishing agents	
Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.	
Special hazards arising from the substance or mixture	
If this product is involved in a fire, the following can be released:	
Carbon monoxide and carbon dioxide	
Metal oxide fume	
Advice for firefighters	
Protective equipment:	
Wear self-contained respirator.	
Wear fully protective impervious suit.	
6 Accidental release measures	
Personal precautions, protective equipment and emergency procedures	
Wear protective equipment. Keep unprotected persons away.	
Ensure adequate ventilation	
Environmental precautions:	
Do not allow material to be released to the environment without proper governmental permits.	
Methods and material for containment and cleaning up:	
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).	
Dispose of contaminated material as waste according to section 13.	
Prevention of secondary hazards:	
No special measures required.	
Reference to other sections	
See Section 7 for information on safe handling	
See Section 8 for information on personal protection equipment.	
See Section 13 for disposal information.	
7 Handling and storage	
Handling	
Precautions for safe handling	
Keep container tightly sealed.	
Store in cool, dry place in tightly closed containers.	
Ensure good ventilation at the workplace.	
Information about protection against explosions and fires:	
No information known.	
Conditions for safe storage, including any incompatibilities	
Storage	
Requirements to be met by storerooms and receptacles:	
No special requirements.	
Information about storage in one common storage facility:	
Store away from oxidizing agents.	
Further information about storage conditions:	
Keep container tightly sealed.	
Store in cool, dry conditions in well sealed containers.	
Specific end use(s)	
No further relevant information available.	
8 Exposure controls/personal protection	
Additional information about design of technical systems:	
Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.	
Control parameters	
Components with limit values that require monitoring at the workplace:	
56-35-9 Bis(tri-n-butyltin) oxide (100.0%)	
PEL (USA)	Long-term value: 0.1 mg/m ³ as Sn
REL (USA)	Long-term value: 0.1 mg/m ³ as Sn, Skin
(Contd. on page 3)	
USA	

Product name: Bis(tri-n-butyltin) oxide

(Contd. of page 2)

TLV (USA)	Short-term value: 0.2 mg/m ³ Long-term value: 0.1 mg/m ³ as Sn; Skin
EL (Canada)	Short-term value: 0.2 mg/m ³ Long-term value: 0.1 mg/m ³ as Sn; Skin
EV (Canada)	Long-term value: 0.1 mg/m ³ as Sn; Skin

Additional information: No data

Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Maintain an ergonomically appropriate working environment.

Breathing equipment: Use suitable respirator when high concentrations are present.

Recommended filter device for short term use:

Use a respirator with organic vapor/acid gas cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards such as NIOSH (USA) or CEN (EU).

Protection of hands:

Impervious gloves

Check protective gloves prior to each use for their proper condition.

The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.

Material of gloves

Neoprene

Butyl rubber, BR

Nitrile rubber, NBR

Penetration time of glove material (in minutes) Not determined

Eye protection: Safety glasses

Body protection: Protective work clothing.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Liquid
Color:	Colorless
Odor:	Irritating
Odor threshold:	Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range:	-45 °C (-49 °F)
Boiling point/Boiling range:	179-180 °C (354-356 °F) (2mm)
Sublimation temperature / start:	Not determined

Flash point:	168 °C (334 °F)
Flammability (solid, gaseous)	Not determined.
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Auto igniting:	Not determined.

Danger of explosion: Not determined.

Explosion limits:

Lower:	Not determined
Upper:	Not determined
Vapor pressure at 25 °C (77 °F):	0.000005 hPa
Density at 20 °C (68 °F):	1.172 g/cm ³ (9.78 lbs/gal)
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water at 20 °C (68 °F):	0.07 g/l
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
dynamic at 20 °C (68 °F):	9 mPas
kinematic:	Not determined.
Other information	No further relevant information available.

10 Stability and reactivity

Reactivity No information known.

Chemical stability Stable under recommended storage conditions.

Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications.

Possibility of hazardous reactions Reacts with strong oxidizing agents

Conditions to avoid No further relevant information available.

Incompatible materials: Oxidizing agents

Hazardous decomposition products:

Carbon monoxide and carbon dioxide

Metal oxide fume

11 Toxicological information

Information on toxicological effects

Acute toxicity:

Toxic in contact with skin.

Toxic if swallowed.



Danger through skin absorption.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.

(Contd. on page 4)
USA

Product name: Bis(tri-n-butyltin) oxide	
(Contd. of page 4)	
Environmental hazards: Marine pollutant (IMDG):	Environmentally hazardous substance, liquid; Marine Pollutant Yes (PP) Symbol (fish and tree)
Special precautions for user EMS Number:	Warning: Toxic substances F-A,S-A
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
DOT Marine Pollutant (DOT): Remarks:	Yes (PP) Special marking with the symbol (fish and tree).
UN "Model Regulation":	UN2788, Organotin compounds, liquid, n.o.s., 6.1, III

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture	
GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)	
Hazard pictograms	
 	
GHS06 GHS08	
Signal word Danger	
Hazard statements	
H301+H311 Toxic if swallowed or in contact with skin.	
H315 Causes skin irritation.	
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Precautionary statements	
P280 Wear protective gloves/protective clothing/eye protection/face protection.	
P273 Avoid release to the environment.	
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P501 Dispose of contents/container in accordance with local/regional/national/international regulations.	
National regulations	
All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.	
All components of this product are listed on the Canadian Domestic Substances List (DSL).	
SARA Section 313 (specific toxic chemical listings)	
56-35-9 Bis(tri-n-butyltin) oxide	
California Proposition 65	
Prop 65 - Chemicals known to cause cancer Substance is not listed.	
Prop 65 - Developmental toxicity Substance is not listed.	
Prop 65 - Developmental toxicity, female Substance is not listed.	
Prop 65 - Developmental toxicity, male Substance is not listed.	
Information about limitation of use:	
For use only by technically qualified individuals.	
This product is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372.	
Other regulations, limitations and prohibitive regulations	
Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.	
This substance is included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH).	
The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.	
Substance is not listed.	
Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed.	
Chemical safety assessment: A Chemical Safety Assessment has not been carried out.	

16 Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.	
Department issuing SDS: Global Marketing Department	
Date of preparation / last revision 11/23/2015 / -	
Abbreviations and acronyms:	
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)	
IMDG: International Maritime Code for Dangerous Goods	
DOT: US Department of Transportation	
IATA: International Air Transport Association	
PP: Severe Marine Pollutant	
EINECS: European Inventory of Existing Commercial Chemical Substances	
CAS: Chemical Abstracts Service (division of the American Chemical Society)	
HMIS: Hazardous Materials Identification System (USA)	
WHMIS: Workplace Hazardous Materials Information System (Canada)	
LC50: Lethal concentration, 50 percent	
LD50: Lethal dose, 50 percent	
vPvB: very Persistent and very Bioaccumulative	
ACGIH: American Conference of Governmental Industrial Hygienists (USA)	
OSHA: Occupational Safety and Health Administration (USA)	
NTP: National Toxicology Program (USA)	
IARC: International Agency for Research on Cancer	
EPA: Environmental Protection Agency (USA)	