

1 Identification of substance**Product details**

Trade name

1-Methyl-2-(tri-n-butylstannyl)pyrrole

Stock number:

H51438

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG
Benzstrasse 3
D-76185 Karlsruhe / GermanyE-mail: gcat@matthey.com
www.alfa-chemcat.com

Informing department:

Product safety department.

Emergency information:

Giftnotruf Universität Mainz / Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240**2 Hazards identification**

Hazard designation:

T Toxic
N Dangerous for the environment

Information pertaining to particular dangers for man and environment

R 21 Harmful in contact with skin.
 R 25 Toxic if swallowed.
 R 36/38 Irritating to eyes and skin.
 R 48/23/25 Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
 R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

GHS label elements

**Danger**

H301 - Toxic if swallowed.

**Danger**

H372 - Causes damage to organs through prolonged or repeated exposure.

**Warning**

H400 - Very toxic to aquatic life.
 H410 - Very toxic to aquatic life with long lasting effects.

Warning

H312 - Harmful in contact with skin.
 H315 - Causes skin irritation.
 H319 - Causes serious eye irritation.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P309 IF exposed or if you feel unwell:
 P310 Immediately call a POISON CENTER or doctor/physician.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Prevention:

Response:

Disposal:

3 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#)

1-Methyl-2-(tri-n-butylstannyl)pyrrole (CAS# 118486-97-8)

4 First aid measures

General information

Instantly remove any clothing soiled by the product.

After inhalation

In case of irregular breathing or respiratory arrest provide artificial respiration. Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact

Seek immediate medical advice. Instantly wash with water and soap and rinse thoroughly.

After eye contact

Seek immediate medical advice.

After swallowing

Rinse opened eye for several minutes under running water. Then consult doctor. Do not induce vomiting; instantly call for medical help.

Seek immediate medical advice.

5 Fire fighting measuresSuitable extinguishing agents
Special hazards caused by the material, its products of combustion or flue gases:

CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

Can be released in case of fire:
 Carbon monoxide and carbon dioxide
 Nitrogen oxides (NOx)
 Metal oxide

Protective equipment:

Possibly Hydrogen cyanide (HCN)
Wear self-contained breathing apparatus.
Wear full protective suit.**6 Accidental release measures**

Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation

Measures for environmental protection:

Do not allow material to be released to the environment without proper governmental permits.

Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of contaminated material as waste according to item 13.

Additional information:

See Section 7 for information on safe handling
 See section 8 for information on personal protection equipment.
 See Section 13 for information on disposal.

7 Handling and storage

Handling

Information for safe handling:

Keep containers tightly sealed.
 Store in cool, dry place in tightly closed containers.
 Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Storage

Requirements to be met by storerooms and containers:

No special requirements.

Information about storage in one common storage facility:

Store away from oxidizing agents.

Trade name 1-Methyl-2-(tri-n-butylstannyl)pyrrole

(Contd. of page 1)

Further information about storage conditions:

Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
Store in a locked cabinet or with access restricted to technical experts or their assistants.

8 Exposure controls and 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.

Components with critical values that require monitoring at the workplace:

Tin, organic compounds, as Sn
mg/m³
ACGIH TLV 0.1; 0.2-STEL (skin)
Not classified as a human carcinogen
Austria MAK 0.1 (skin)
Belgium TWA 0.1 (skin)
Denmark TWA 0.1 (skin)
France VME 0.1; 0.2-VLE
Germany MAK 0.1 (skin)
Hungary 0.1-STEL (skin)
Netherlands MAC-TGG 0.1; 0.2-MAC-K (skin)
Norway TWA 0.1
Switzerland MAK-W 0.1; 0.2-KZG-W (skin)
United Kingdom 0.1; 0.2-STEL (skin)
USA PEL 0.1

Components with critical values that require monitoring at the workplace:
Additional information:

No data

Personal protective equipment
General protective and hygienic measures

The usual precautionary measures should be adhered to in handling the chemicals.
Keep away from foodstuffs, beverages and food.
Instantly remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.
Use breathing protection with high concentrations.
Check protective gloves prior to each use for their proper condition.
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Breathing equipment:
Protection of hands:
Material of gloves

Impervious gloves

Penetration time of glove material
Eye protection:

Not determined

Safety glasses

Face protection

Body protection:

Protective work clothing.

9 Physical and chemical properties:
General Information

Form: Liquid
Colour: Colourless
Light brown
Smell: Not determined

Change in condition

Melting point/Melting range: Not determined
Boiling point/Boiling range: Not determined
Sublimation temperature / start: Not determined

Flash point: 98°C

Ignition temperature: Not determined

Decomposition temperature: Not determined

Danger of explosion: Product is not explosive.

Critical values for explosion:

Lower: Not determined
Upper: Not determined

Steam pressure: Not determined

Density at 20°C 1.122 g/cm³

Solubility in / Miscibility with Water: Not miscible or difficult to mix

10 Stability and reactivity
Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Materials to be avoided:

Oxidizing agents

Dangerous reactions:

No dangerous reactions known

Dangerous products of decomposition:

Carbon monoxide and carbon dioxide
Metal oxide
Nitrogen oxides (NO_x)
Possibly Hydrogen cyanide (HCN)

11 Toxicological information
Acute toxicity:
Primary irritant effect:

Irritant for skin and mucous membranes.

on the skin:

Irritant effect.

on the eye:

No sensitizing effect known.

Sensitization:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Additional toxicological information:

Danger by skin resorption.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA

or ACGIH.

Trade name **1-Methyl-2-(tri-n-butylstannyl)pyrrole**

(Contd. of page 2)

12 Ecological information:

Ecotoxicological effects:
Remark: Very toxic for fish
Additional ecological information:
General notes: Water danger class 3 (Self-assessment): extremely hazardous for water.
Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into soil.
Also poisonous for fish and plankton in water bodies.
Do not allow material to be released to the environment without proper governmental permits.
Very toxic for aquatic organisms

13 Disposal considerations

Product:
Recommendation: Hand over to disposers of hazardous waste.
Must be specially treated under adherence to official regulations.
Consult state, local or national regulations for proper disposal.

Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.

14 Transport information**Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**

ADR/RID-GGVS/E Class: 6.1 (T3) Toxic substances.
Kemler Number: 60
UN-Number: 2788
Packaging group: III
Label: 6.1
Special marking: Symbol (fish and tree)
Designation of goods: 2788 ORGANOTIN COMPOUND, LIQUID, N.O.S. (1-Methyl-2-(tri-n-butylstannyl)pyrrole)
Limited quantities (LQ): LQ7
Transport category: 2
Tunnel restriction code: E

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: 6.1
UN Number: 2788
Label: 6.1
Packaging group: III
Marine pollutant: Yes (P)
Symbol (fish and tree)
Correct technical name: ORGANOTIN COMPOUND, LIQUID, N.O.S. (1-Methyl-2-(tri-n-butylstannyl)pyrrole)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 6.1
UN/ID Number: 2788
Label: 6.1
Packaging group: III
Correct technical name: ORGANOTIN COMPOUND, LIQUID, N.O.S. (1-Methyl-2-(tri-n-butylstannyl)pyrrole)

UN "Model Regulation":

Environmental hazards: UN2788, ORGANOTIN COMPOUND, LIQUID, N.O.S., 6.1, III
Environmentally hazardous substance, liquid; Marine Pollutant

15 Regulatory information**Designation according to EC guidelines:**

Code letter and hazard designation of product:



T Toxic
N Dangerous for the environment

Risk phrases:

21 Harmful in contact with skin.
25 Toxic if swallowed.
36/38 Irritating to eyes and skin.
48/23/25 Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
60 This material and its container must be disposed of as hazardous waste.
61 Avoid release to the environment. Refer to special instructions/safety data sheets.

National regulations**Information about limitation of use:**

For use only by technically qualified individuals.
Employment restrictions concerning young persons must be observed.

Water hazard class:

Water danger class 3 (Self-assessment): extremely hazardous for water.

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 data specification sheet: Health, Safety and Environmental Department.
Contact: Zachariah Holt

(Contd. on page 4)
GB

Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 13.08.2010

Revision: 13.08.2010

Trade name 1-Methyl-2-(tri-n-butylstannyl)pyrrole**Abbreviations and acronyms:**

(Contd. of page 3)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
P: Marine Pollutant
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service (division of the American Chemical Society)

GB