

Safety Data Sheet

according to UK REACH Regulation

TBS-CT

Revision date: 23.05.2022

Product code: 4041

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

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Further trade names

8-Azabicyclo[3.2.1]octane-2-carboxylic acid, 8-methyl-3-[4-(tributylstannyl)phenyl]-, methyl ester, (1R,2S,3S,5S)

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Synonymes:

(-)-2-beta-Carbomethoxy-3-beta-[4-(tributylstannyl)]phenyltropane; 8-Azabicyclo[3.2.1]octane-2-carboxylic acid, 8-methyl-3-[4-(tributylstannyl)phenyl]-, methyl ester, [1R-(exo,exo)]-Tributylstannyl-beta-CT

CAS No: 136794-88-2

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Precursor for [18F]CFT

Precursor for [*]beta-CIT

1.3. Details of the supplier of the safety data sheet

Company name:	ABX advanced biochemical compounds	
	Biomedizinische Forschungsreagenzien GmbH	
Street:	Heinrich-Gläser-Straße 10-14	
Place:	01454 Radeberg	
Telephone:	+49 3528 4041 60	Telefax: +49 3528 4041 65
e-mail:	info@abx.de	
Contact person:	Dr. Christoph Meyer	Telephone: +49 3528 4041 8732
e-mail:	meyer@abx.de	
Internet:	http://www.abx.de	

1.4. Emergency telephone number: +49 3528 4041 60**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GB CLP Regulation**

Acute Tox. 3; H301
 Acute Tox. 4; H312
 Skin Irrit. 2; H315
 Eye Irrit. 2; H319
 STOT RE 1; H372
 Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

2.2. Label elements**GB CLP Regulation****Hazard components for labelling**

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Signal word: Danger**Pictograms:**

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Hazard statements

H301	Toxic if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H372	Causes damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P302+P352	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice/attention if you feel unwell.

2.3. Other hazards

Warning - substance not yet tested completely.

SECTION 3: Composition/information on ingredients**3.1. Substances****Chemical characterization**

8-Azabicyclo[3.2.1]octane-2-carboxylic acid, 8-methyl-3-[4-(tributylstannyl)phenyl]-, methyl ester, (1R,2S,3S,5S)

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Sum formula: C28H47NO2Sn

Molecular weight: 548.39

Hazardous components

CAS No	Chemical name	Quantity
	EC No Index No REACH No	
	Classification (GB CLP Regulation)	
136794-88-2	TBS-CT	95 - < 100 %
	Acute Tox. 3, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT RE 1, Aquatic Chronic 1; H301 H312 H315 H319 H372 H410	

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
136794-88-2		TBS-CT	95 - < 100 %
		dermal: ATE = 1100 mg/kg; oral: ATE = 100 mg/kg	

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

First aider: Pay attention to self-protection!

After inhalation

No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Call a physician immediately. Provide fresh air. In case of breathing difficulties administer oxygen. In all cases of doubt, or when symptoms persist, seek medical advice.

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After contact with skin

Medical treatment necessary. After contact with skin, wash immediately with: Water. Change contaminated clothing. Seek medical advice.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Suitable extinguishing media: Water spray. Foam. Extinguishing powder. Carbon dioxide (CO₂).

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon dioxide (CO₂). Carbon monoxide Nitrogen oxides (NO_x).

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Additional information

Suppress gases/vapours/mists with water spray jet. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Provide adequate ventilation. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

6.2. Environmental precautions

0000000000 Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up**Other information**

Soak up inert absorbent and dispose as waste requiring special attention. Clear contaminated areas thoroughly.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. Do not eat, drink, smoke or sneeze at the workplace.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container dry. Keep locked up. Store in a place accessible by authorized persons only. Keep container tightly closed in a cool, well-ventilated place. Restrict access to stockrooms.

Further information on storage conditions

storage temperature:

of °C: -25

up to °C: -15

Store under (Gas): argon. Nitrogen.

Protect against: Light.

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SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Additional advice on limit values**

To date, no national critical limit values exist.

8.2. Exposure controls**Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Individual protection measures, such as personal protective equipment**Respiratory protection**

If handled uncovered, arrangements with local exhaust ventilation have to be used.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state: liquid viscous

Colour: colourless

Changes in the physical state

Water solubility: The study does not need to be conducted because the substance is known to be insoluble in water.

Solubility in other solvents

Chloroform

SECTION 10: Stability and reactivity**10.4. Conditions to avoid**

Light.

10.5. Incompatible materials

Water. Oxidizing agents, strong.

10.6. Hazardous decomposition productsCarbon monoxide. Carbon dioxide. Nitrogen oxides (NO_x).**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

Toxic. Acute toxicity, oral. Acute toxicity, inhalant. Acute toxicity, dermal.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
136794-88-2	TBS-CT				
	oral	ATE mg/kg	100		
	dermal	ATE mg/kg	1100		

Irritation and corrosivity

Irritating to eyes. After skin contact: irritant.

STOT-repeated exposure

Danger of serious damage to health by prolonged exposure.

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Further information

Data obtained by analogy conclusion, e.g. QSAR. Toxicological data are not available.

SECTION 12: Ecological information**12.1. Toxicity**

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of UK REACH.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

Further information

Do not allow uncontrolled discharge of product into the environment.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number or ID number:	UN 2788
14.2. UN proper shipping name:	ORGANOTIN COMPOUND, LIQUID, N.O.S (contains Trimethylstannyl-beta-CT)
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	III
Hazard label:	6.1

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 2788
14.2. UN proper shipping name:	ORGANOTIN COMPOUND, LIQUID, N.O.S (contains Trimethylstannyl-beta-CT)
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	III
Hazard label:	6.1

Marine transport (IMDG)

14.1. UN number or ID number:	UN 2788
14.2. UN proper shipping name:	ORGANOTIN COMPOUND, LIQUID, N.O.S (contains Trimethylstannyl-beta-CT)
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	III
Hazard label:	6.1

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 2788
14.2. UN proper shipping name:	ORGANOTIN COMPOUND, LIQUID, N.O.S (contains Trimethylstannyl-beta-CT)
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	III
Hazard label:	6.1

Other applicable information

UN No.: 3146

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SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3

National regulatory information

Water hazard class (D): 3 - highly hazardous to water

SECTION 16: Other information**Relevant H and EUH statements (number and full text)**

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