

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**TABANON**

Version	Revision Date:	SDS Number:	Date of last issue: 06.04.2019
2.0	14.06.2019	000000001082	Date of first issue: 16.01.2018

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

Trade name : TABANON

REACH Registration Number : 01-2120763555-47-XXXX

Substance name : 4-(2-butenylidene)-3,5,5-trimethylcyclohex-2-en-1-one

CAS-No. : 13215-88-8

EC-No. : 236-187-2

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

Use of the Substance/Mixture : Raw material used in flavoring preparations and/or perfumery.

Recommended restrictions on use : Uses other than those recommended.

**1.3 Details of the supplier of the safety data sheet**

Company : INDUKERN S.A.  
C/ Alta Ribagorça, 6-8  
08820 El Prat del Llobregat. Barcelona

Telephone : +34935069100

Telefax : +34935069199

E-mail address of person responsible for the SDS : indukern@indukern.es

Web : www.indukern.es

**1.4 Emergency telephone number**

+34 704 1000 87 (24h)

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**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Acute toxicity, Category 4

H302: Harmful if swallowed.

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Skin irritation, Category 2	H315: Causes skin irritation.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.

## 2.2 Label elements

## Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements :

- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H412 Harmful to aquatic life with long lasting effects.

Precautionary statements :

**Prevention:**

- P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- P264 Wash skin thoroughly after handling.
- P273 Avoid release to the environment.
- P280 Wear protective gloves.

**Response:**

- P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
- P362 + P364 Take off contaminated clothing and wash it before reuse.

Hazardous components which must be listed on the label:

4-(2-butenylidene)-3,5,5-trimethylcyclohex-2-en-1-one

## 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

## 3.1 Substances

## Hazardous components

Identifier	Chemical name	Concentration (% w/w)	Classification	Concentration limits
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CAS-No.: 13215-88-8 EC-No.: 236-187-2	4-(2-butenylidene)-3,5,5-trimethylcyclohex-2-en-1-one	90 - 100	Acute Tox. 4; H302 Skin Irrit. 2; H315 Skin Sens. 1; H317 Aquatic Chronic 3; H412	-
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**3.2 Mixtures**

Not applicable

For explanation of abbreviations see section 16.

**SECTION 4: First aid measures****4.1 Description of first aid measures**

- General advice                                : Do not leave the victim unattended.
- If inhaled                                        : If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of eye contact                        : Remove contact lenses.  
Protect unharmed eye.  
If eye irritation persists, consult a specialist.
- If swallowed                                    : Keep respiratory tract clear.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.

**4.2 Most important symptoms and effects, both acute and delayed**

- Risks    : Harmful if swallowed.  
May cause an allergic skin reaction.

**4.3 Indication of any immediate medical attention and special treatment needed**

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

- Suitable extinguishing media                : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media            : Do NOT use water jet.

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**5.2 Special hazards arising from the substance or mixture**

Specific hazards during firefighting : May release toxic, irritating and/or corrosive gases.

Exposure to decomposition products may be a hazard to health.

**5.3 Advice for firefighters**

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Standard procedure for chemical fires.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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

For personal protection see section 8.

**6.2 Environmental precautions**

Environmental precautions : Dangerous for the environment

Should not be released into the environment.

Try to prevent the material from entering drains or water courses.

Do not allow contact with soil, surface or ground water.

If the product contaminates rivers and lakes or drains inform respective authorities.

**6.3 Methods and material for containment and cleaning up**

Methods for cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).  
Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

Handling and storage. See chapter 7.

Exposure controls/personal protection. See chapter 8.

Disposal considerations. See chapter 13.

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

Advice on safe handling : For personal protection see section 8.

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Smoking, eating and drinking should be prohibited in the application area.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : General industrial hygiene practice.

**7.2 Conditions for safe storage, including any incompatibilities**

Requirements for storage areas and containers : Electrical installations / working materials must comply with the technological safety standards.

Advice on common storage : No materials to be especially mentioned.

Other data : No decomposition if stored and applied as directed.

**7.3 Specific end use(s)**

Raw material used in flavoring preparations and/or perfumery.

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

**8.2 Exposure controls**

<b>Concentration</b>	<b>100%</b>
<b>Uses:</b>	<b>Raw material used in flavoring preparations and/or perfumery.</b>
<b>Respiratory protection:</b>	
PPE:	Filtering mask for protection against vapours and particles.
Characteristics:	«CE» marking, category III. The mask must have a wide field of vision and an anatomically designed form in order to be sealed and watertight.
CEN standards:	EN 136, EN 140, EN 149, EN 405
Maintenance:	It must not be stored in places exposed to high temperatures or humidity before use. The condition of the inhalation and exhalation valves of the facial adapter should be specifically checked.
Remarks:	Read carefully the manufacturer's instructions regarding the equipment's use and maintenance. Attach the necessary filters to the equipment according to the specific nature of the risk (Particles P1-P2-P3) and vapours (A-B-E-K-AX) changing them as advised by the manufacturer.




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<b>Hand protection:</b>		
PPE:	Protective gloves.	
Characteristics:	«CE» marking, category II.	
CEN standards:	EN 374-1, EN 374-2, EN 374-3, EN 420	
Maintenance:	They should be kept in a dry place, away from possible sources of heat, and exposure to sunlight should be avoided as much as possible. Changes that could alter the gloves' resistance should not be made, nor should paints solvents or adhesives be applied.	
Remarks:	They should be replaced whenever tears, cracks or deformations are found and when external dirt may reduce their resistance. The gloves should be of the correct size and fit the hand without being too loose or too tight. They must always be used with clean, dry hands.	
	NITRILE: The list of chemical products against which the glove has been tested should be reviewed.	
<b>Eye protection:</b>		
PPE:	Safety glasses.	
Characteristics:	Category II CE marking. Eye protector against dust, fumes, mists, vapours and splashes.	
CEN standards:	EN 166	
Maintenance:	Visibility through the glasses must be optimal, so the lenses must be cleaned daily. The protectors must be disinfected periodically following the manufacturer's instructions. The smoothness of the moving parts should be checked.	
Remarks:	Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.	
<b>Skin protection:</b>		
PPE:	Protective clothing.	
Characteristics:	«CE» marking, category II. Protective clothing should not be too tight or loose in order not to obstruct the user's movements.	
CEN standards:	EN 340	
Maintenance:	In order to guarantee uniform protection, follow the washing and maintenance instructions provided by the manufacturer.	
Remarks:	The protective clothing should offer a level of comfort in line with the level of protection provided in terms of the hazard against which it protects, bearing in mind environmental conditions, the user's level of activity and the expected time of use.	

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PPE:	Anti-static safety footwear against chemicals.	
Characteristics:	«CE» marking, category III. Check the list of chemicals against which the footwear is resistant.	
CEN standards:	EN ISO 13287, EN 13832-1, EN 13832-2, EN 13832-3, EN ISO 20345	
Maintenance:	For correct maintenance of this safety footwear, the instructions specified by the manufacturer must be followed. The footwear must be replaced in the event of any sign of deterioration.	
Remarks:	The footwear should be cleaned regularly and dried when damp, although it should not be placed too close to a source of heat in order to avoid any sharp changes in temperature.	

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

Appearance	: LIQUID
Colour	: PALE YELLOW TO BROWNISH YELLOW
Odour	: WARM, DRY, SWEET, TOBACCO
Odour Threshold	: N.A./N.A.
pH	: N.A./N.A.
Melting point/freezing point	: N.A./N.A.
Boiling point	: N.A./N.A.
Flash point	: > 150 °C
Evaporation rate	: N.A./N.A.
Flammability (solid, gas)	: N.A./N.A.
Upper explosion limit	: N.A./N.A.
Lower explosion limit	: N.A./N.A.
Vapour pressure	: N.A./N.A.
Relative vapour density	: N.A./N.A.
Relative density	: N.A./N.A.
Density	: 0,985 - 1,005 g/cm <sup>3</sup>
<u>Solubility(ies)</u>	
Water solubility	: N.A./N.A.
Solubility in other solvents	: N.A./N.A.

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Partition coefficient: n-octanol/water : N.A./N.A.

Auto-ignition temperature : N.A./N.A.

Decomposition temperature : N.A./N.A.

Viscosity

Viscosity, dynamic : N.A./N.A.

Viscosity, kinematic : N.A./N.A.

Explosive properties : N.A./N.A.

Oxidizing properties : N.A./N.A.

**9.2 Other information**

No data available

N.A./N.A.= Not available / Not applicable due to the nature of the product.

**SECTION 10: Stability and reactivity****10.1 Reactivity**

No decomposition if stored and applied as directed.

**10.2 Chemical stability**

No decomposition if stored and applied as directed.

**10.3 Possibility of hazardous reactions**

Hazardous reactions : Stable under recommended storage conditions.  
No hazards to be specially mentioned.

**10.4 Conditions to avoid**

Conditions to avoid : No data available

**10.5 Incompatible materials**

Materials to avoid : Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

**10.6 Hazardous decomposition products**

No decomposition if used as directed. No decomposition if stored normally.



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**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Harmful if swallowed.

**Product:**

Acute oral toxicity : Acute toxicity estimate: 500 mg/kg  
Method: Calculation method

**Skin corrosion/irritation**

Not classified based on available information.

**Serious eye damage/eye irritation**

Not classified based on available information.

**Skin sensitisation**

May cause an allergic skin reaction.

**Respiratory sensitisation**

Not classified based on available information.

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**Reproductive toxicity**

Not classified based on available information.

**STOT - single exposure**

Not classified based on available information.

**STOT - repeated exposure**

Not classified based on available information.

**Aspiration toxicity**

Not classified based on available information.

**Further information****Product:**

Remarks: No data available

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

No data available

**12.2 Persistence and degradability**

No data available

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**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment****Product:**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

**12.6 Other adverse effects****Product:**

Additional ecological information : No data available

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

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

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**SECTION 14: Transport information****14.1 UN number**

Not regulated as a dangerous good

**14.2 UN proper shipping name**

Not regulated as a dangerous good

**14.3 Transport hazard class(es)**

Not regulated as a dangerous good

**14.4 Packing group**

Not regulated as a dangerous good

**14.5 Environmental hazards**

Not regulated as a dangerous good

**14.6 Special precautions for user**

Not applicable

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable for product as supplied.

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

International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors : Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.  
Not applicable

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)  
Remarks: Not applicable

Check:

- REGULATION (EU) No 528/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 22 May 2012 concerning the making available on the market and use of biocidal products
- REGULATION (EC) No 273/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 February 2004 on drug precursors
- REGULATION (EU) No 98/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 15 January 2013 on the marketing and use of explosives precursors

**15.2 Chemical safety assessment**

A Chemical Safety Assessment is not required for this substance.

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**SECTION 16: Other information****Full text of other abbreviations**

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

**Further information**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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