

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## Triton® X 100 extra pure

article number: **3051**

Version: **2.1 en**

Replaces version of: 2015-11-26

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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Identification of the substance **TRITON X 100 extra pure**

Article number 3051

Registration number (REACH) not relevant (mixture)

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

**Identified uses:** laboratory chemical

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

Carl Roth GmbH + Co KG  
Schoemperlenstr. 3-5  
D-76185 Karlsruhe  
Germany

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**e-mail:** [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

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Competent person responsible for the safety data sheet : Department Health, Safety and Environment

**e-mail (competent person)** : [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

### 1.4 Emergency telephone number

Emergency information service **Poison Centre Munich: +49/(0)89 19240**

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Classification acc. to GHS			
Section	Hazard class	Hazard class and category	Hazard statement
3.10	acute toxicity (oral)	(Acute Tox. 4)	H302
3.3	serious eye damage/eye irritation	(Eye Dam. 1)	H318

#### Remarks

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

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### 2.2 Label elements

#### Labelling according to Regulation (EC) No 1272/2008 (CLP)

##### Signal word

**Danger**

##### Pictograms



##### Hazard statements

H302 Harmful if swallowed.  
H318 Causes serious eye damage.

##### Precautionary statements

##### **Precautionary statements - prevention**

P280 Wear protective clothing/eye protection.

##### **Precautionary statements - response**

P301+P312 IF SWALLOWED: call a POISON CENTER/doctor/.../if you feel unwell.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Hazardous ingredients for labelling:** Polyethylene glycol octylphenyl ether

##### **Labelling of packages where the contents do not exceed 125 ml**

Signal word: **Danger**

Symbol(s)



H318 Causes serious eye damage.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
contains: Polyethylene glycol octylphenyl ether

### 2.3 Other hazards

There is no additional information.

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## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Description of the mixture

Composition/information on ingredients.

Name of substance	Identifier	wt%	Classification acc. to 1272/2008/EC	Pictograms	Specific Conc. Limits
Polyethylene glycol octylphenyl ether	CAS No 9036-19-5	97	Acute Tox. 4 / H302 Eye Dam. 1 / H318 Aquatic Chronic 2 / H411		

#### Substance of Very High Concern (SVHC)

Name of substance	CAS No	Wt%	Remarks
Polyethylene glycol octylphenyl ether		97	

#### Remarks

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures



#### General notes

Take off contaminated clothing.

#### Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following skin contact

Rinse skin with water/shower. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following eye contact

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

#### Following ingestion

Rinse mouth with water (only if the person is conscious). Call a doctor.

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

After eye contact: Conjunctival oedema (chemosis) of the eyes, Conjunctival redness of the eyes, Risk of serious damage to eyes,

Following skin contact: Irritant effects,

After ingestion: Vomiting,

Following inhalation: Cough, pain, choking, and breathing difficulties

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**4.3 Indication of any immediate medical attention and special treatment needed**  
none

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### **Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings  
water spray, foam, dry extinguishing powder, carbon dioxide (CO<sub>2</sub>)

#### **Unsuitable extinguishing media**

water jet

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

Combustible.

#### **Hazardous combustion products**

In case of fire may be liberated: May produce toxic fumes of carbon monoxide if burning.

### 5.3 Advice for firefighters

Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

#### **Special protective equipment for firefighters**

Protective clothing against liquid and gaseous chemicals, including liquid aerosols and solid particles. Self-contained breathing apparatus (SCBA). Self-contained breathing apparatus (EN 133).

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### **For non-emergency personnel**

Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water.

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

#### **Advices on how to contain a spill**

Covering of drains.

#### **Advices on how to clean up a spill**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

#### **Other information relating to spills and releases**

Place in appropriate containers for disposal. Ventilate affected area.

#### **Reference to other sections**

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Provision of sufficient ventilation.

#### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

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

Keep container tightly closed.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Consideration of other advice

- **Ventilation requirements**

Use local and general ventilation.

- **Specific designs for storage rooms or vessels**

Recommended storage temperature: 15 - 25 °C.

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### National limit values

#### Occupational exposure limit values (Workplace Exposure Limits)

Data are not available.

### 8.2 Exposure controls

#### Individual protection measures (personal protective equipment)



#### Eye/face protection

Use safety goggle with side protection.

#### Skin protection

- **hand protection**

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- **type of material**

NBR (Nitrile rubber)

- **material thickness**

>0,11 mm.

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- **breakthrough times of the glove material**

>480 minutes (permeation: level 6)

- **other protection measures**

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

### **Respiratory protection**

Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C, colour code: Brown).

Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

### **Environmental exposure controls**

Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### **Appearance**

Physical state	liquid (fluid)
Colour	acc. to product description
Odour	this information is not available
Odour threshold	No data available

#### **Other physical and chemical parameters**

pH (value)	6,5
Melting point/freezing point	6 °C
Initial boiling point and boiling range	>200 °C
Flash point	251 °C
Evaporation rate	no data available
Flammability (solid, gas)	not relevant (fluid)
<u>Explosive limits</u>	
• lower explosion limit (LEL)	this information is not available
• upper explosion limit (UEL)	this information is not available
Explosion limits of dust clouds	not relevant
Vapour pressure	<0,01 hPa at 20 °C
Density	1,06 g/cm <sup>3</sup>
Vapour density	This information is not available.
Bulk density	Not applicable
Relative density	Information on this property is not available.

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### Solubility(ies)

Water solubility no data available

### Partition coefficient

n-octanol/water (log KOW) 2,7 (estimated)

Auto-ignition temperature 370 °C

Decomposition temperature no data available

Viscosity not determined

Explosive properties none

Oxidising properties none

## 9.2 Other information

There is no additional information.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

In case of warming: Vapours can form explosive mixtures with air.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

Violent reaction with: Strong oxidiser

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

There is no additional information.

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Harmful if swallowed.

#### • Acute toxicity of components of the mixture

Name of substance	CAS No	Exposure route	ATE
Polyethylene glycol octylphenyl ether	9036-19-5	oral	1.900

#### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

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### Serious eye damage/eye irritation

Causes serious eye damage.

### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

### Summary of evaluation of the CMR properties

Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant

#### • Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

#### • Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

### Symptoms related to the physical, chemical and toxicological characteristics

#### • If swallowed

vomiting, nausea

#### • If in eyes

conjunctivitis (pink eye), causes tears, Causes serious eye damage

#### • If inhaled

cough, pain, choking, and breathing difficulties

#### • If on skin

causes slight to moderate irritation

### Other information

None

## SECTION 12: Ecological information

### 12.1 Toxicity

acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.

#### Aquatic toxicity (acute)

Test data are not available for the complete mixture.

#### Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Polyethylene glycol octylphenyl ether	9036-19-5	EC50	18 mg/l	daphnia magna	48 hours
Polyethylene glycol octylphenyl ether	9036-19-5	LC50	4 mg/l	Pimephales promelas	96 hours

### 12.2 Process of degradability

The substance is readily biodegradable.

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Process	Degradation rate	Time
biotic/abiotic	>60 %	28 d

### 12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

n-octanol/water (log KOW) 2,7

#### Bioaccumulative potential of components of the mixture

Name of sub-stance	CAS No	BCF	Log KOW	BOD5/COD
Polyethylene glycol octylphenyl ether	9036-19-5	15		

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Other adverse effects

Strongly hazardous to water.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Sewage disposal-relevant information

Do not empty into drains.

### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

## SECTION 14: Transport information

14.1	UN number	(not subject to transport regulations)
14.2	UN proper shipping name	not relevant
14.3	Transport hazard class(es)	not relevant
	Class	-
14.4	Packing group	not relevant
14.5	Environmental hazards	none (non-environmentally hazardous acc. to the dangerous goods regulations)

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### 14.6 Special precautions for user

There is no additional information.

### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

The cargo is not intended to be carried in bulk.

### 14.8 Information for each of the UN Model Regulations

#### • Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)

Not subject to ADR, RID and ADN.

#### • International Maritime Dangerous Goods Code (IMDG)

Not subject to IMDG.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Relevant provisions of the European Union (EU)

#### • Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC)

None of the ingredients are listed.

#### • Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS)

None of the ingredients are listed.

#### • Regulation 850/2004/EC on persistent organic pollutants (POP)

None of the ingredients are listed.

#### • Restrictions according to REACH, Annex XVII

None of the ingredients are listed.

#### • List of substances subject to authorisation (REACH, Annex XIV)

Substance of Very High Concern (SVHC)			
Name of substance	CAS No	Wt%	Remarks
Polyethylene glycol octylphenyl ether		97	

#### • Limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products (2004/42/EC, Deco-Paint Directive)

VOC content 97 %

#### • Directive on industrial emissions (VOCs, 2010/75/EU)

VOC content 0 %

#### Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

None of the ingredients are listed.

#### Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

None of the ingredients are listed.

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**Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)**

None of the ingredients are listed.

### 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### 16.1 Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
12.6	Other adverse effects: Slightly hazardous to water.	Other adverse effects: Strongly hazardous to water.	no

### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
Acute Tox.	acute toxicity
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
Aquatic Chronic	hazardous to the aquatic environment - chronic hazard
ATE	Acute Toxicity Estimate
BCF	BioConcentration Factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
CMR	Carcinogenic, Mutagenic or toxic for Reproduction
COD	chemical oxygen demand
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
Eye Dam.	seriously damaging to the eye
Eye Irrit.	irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IMDG	International Maritime Dangerous Goods Code
index No	the Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
log KOW	n-octanol/water
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
PBT	Persistent, Bioaccumulative and Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)

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Abbr.	Descriptions of used abbreviations
VOC	Volatile Organic Compounds
vPvB	very Persistent and very Bioaccumulative

### Key literature references and sources for data

- Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU
- Regulation (EC) No. 1272/2008 (CLP, EU GHS)

### List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H302	harmful if swallowed
H318	causes serious eye damage
H411	toxic to aquatic life with long lasting effects

### Disclaimer

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.