

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006



Triabon® 16-8-12

Version: 1.11
Date of last issue: 06.04.2023
Date of first issue: 31.03.2016

Revision Date:
06.03.2024

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

1.1 Product identifier

Trade name : Triabon® 16-8-12

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

Use of the Substance/Mixture : Fertiliser

1.3 Details of the supplier of the safety data sheet

Company : COMPO EXPERT GmbH
Krögerweg 10
D-48155 Münster

Telephone : +49 (0) 251 29 79 81 – 000

Telefax : +49 (0) 251 29 79 81 - 111

E-mail address of person responsible for the SDS : info@compo-expert.com

1.4 Emergency telephone number

GBK GmbH - Global Regulatory Compliance - 24h
Telephone: +49 (0) 6132 - 84463

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard statements : Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Supplemental Hazard Statements : EUH210 Safety data sheet available on request.

2.3 Other hazards

Product does not contain substances which are persistent, bioaccumulative, and toxic (PBT) at levels of 0.1% or higher.

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Triabon® 16-8-12



Version: 1.11
Date of last issue: 06.04.2023
Date of first issue: 31.03.2016

Revision Date:
06.03.2024

Product does not contain substances which are very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Fertiliser
NPK-Fertilizer on basis: crotonylidenediurea, potassium sulphate, ammonium salts, phosphates, magnesium salts, other nutrients.

Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
ammonium nitrate	6484-52-2 229-347-8 01-2119490981-27-XXXX	Ox. Sol. 3; H272 Eye Irrit. 2; H319	>= 1 - < 9,7
Borates, tetra sodium salts, pentahydrate	12179-04-3 215-540-4 01-2119490790-32-XXXX	Repr. 1B; H360FD Eye Irrit. 2; H319	>= 0,1 - < 0,3

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled : If breathed in, move person into fresh air.
On inhalation of decomposition products:
In case of lung irritation, first treatment with dexametason aerosol (spray).
Keep patient calm, remove to fresh air, seek medical attention.

In case of skin contact : Wash thoroughly with soap and water.

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Triabon® 16-8-12



Version: 1.11

Date of last issue: 06.04.2023

Date of first issue: 31.03.2016

Revision Date:

06.03.2024

In case of eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed : Clean mouth with water and drink afterwards plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water

Unsuitable extinguishing media : Foam
Dry chemical
Carbon dioxide (CO₂)
Sand

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Can decompose at above 100 °C. Thermal decomposition products:
carbon monoxide
Carbon dioxide (CO₂)
Nitrogen monoxide, nitrogen dioxide, dinitrogenoxide, ammonia

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : No special precautions required.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Triabon® 16-8-12



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06.03.2024

Retain and dispose of contaminated wash water.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Use mechanical handling equipment.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on protection against fire and explosion : The product is not flammable. Keep away from sources of ignition - No smoking. Keep away from combustible materials. Keep away from heat.

Hygiene measures : At the end of the shift the skin should be cleaned and skin-care agents applied.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : When stored loose do not mix with other fertilizers. Store well away from other substances. Keep away from direct sunlight. Protect against heat. Protect from contamination. Protect against humidity (product is hygroscopic and tends to cake or disintegrate)

Storage class (TRGS 510) : 13, Non Combustible Solids

7.3 Specific end use(s)

Specific use(s) : Not relevant

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Borates, tetra sodium salts, pentahydrate	12179-04-3		3 mg/m ³	DE TRGS 900
Peak-limit: excursion factor (category)	8;(II)			
Further information	Commission for dangerous substances, The threshold value is based on the element content of the corresponding metal., When there is compliance with the OEL and biological tolerance values, there is no risk of harming the			

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006



Triabon® 16-8-12

Version: 1.11
Date of last issue: 06.04.2023
Date of first issue: 31.03.2016

Revision Date:
06.03.2024

	unborn child			
		AGW	0,5 mg/m3 (Borate)	DE TRGS 900
Peak-limit: excursion factor (category)	2;(I)			
Further information	Commission for dangerous substances, The threshold value is based on the element content of the corresponding metal., When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
			1 mg/m3	ACGIHTLV
		TWA	1 mg/m3	GB EH40

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Triabon® 16-8-12				
Remarks:	This information is not available.			

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Triabon® 16-8-12		
Remarks:	This information is not available.	

8.2 Exposure controls

Personal protective equipment

Respiratory protection : Breathing apparatus only if aerosol or dust is formed.

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.
Retain and dispose of contaminated wash water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : granular

Colour : various

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Triabon® 16-8-12



Version: 1.11

Date of last issue: 06.04.2023

Date of first issue: 31.03.2016

Revision Date:

06.03.2024

Odour	: odourless
pH	: ca. 6,1, Concentration: 100 g/l (20 °C)
Melting point/range	: > 130 °C
Boiling point/boiling range	: Not applicable
Flash point	: Not applicable
Evaporation rate	: Not applicable
Flammability (solid, gas)	: The product is not flammable.
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapour pressure	: Not applicable
Relative vapour density	: Not applicable
Bulk density	: ca. 950 kg/m ³
Solubility(ies)	
Water solubility	: soluble
Partition coefficient: n-octanol/water	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: ca. 100 °C To avoid thermal decomposition, do not overheat. Thermal decomposition above the indicated temperature is possible.
Viscosity	
Viscosity, dynamic	: Not applicable
Viscosity, kinematic	: Not applicable
Explosive properties	: Not explosive
Oxidizing properties	: Not considered an oxidizing substance
Particle characteristics	
Particle Size Distribution	: D50 = 1,6 mm

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006



Triabon® 16-8-12

Version: 1.11
Date of last issue: 06.04.2023
Date of first issue: 31.03.2016

Revision Date:
06.03.2024

D50 Tolerance range = 1,2 mm - 2,0 mm
Measurement technique: Optoelectronic measurement method

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : Evolution of ammonia under influence of alkalis.

10.4 Conditions to avoid

Conditions to avoid : No decomposition if stored and applied as directed.

10.5 Incompatible materials

Materials to avoid : alkaline reactive substances

10.6 Hazardous decomposition products

Hazardous decomposition products : Carbon dioxide (CO₂)
Carbon monoxide
ammonia

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Remarks: Calculation method

Components:

ammonium nitrate:

Acute oral toxicity : LD50 (Rat): > 2.950 mg/kg
Method: OECD Test Guideline 401

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Triabon® 16-8-12



Version: 1.11

Date of last issue: 06.04.2023

Date of first issue: 31.03.2016

Revision Date:

06.03.2024

Acute inhalation toxicity : > 88,8 mg/l
Method: No information available.

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 402

Borates, tetra sodium salts, pentahydrate:

Acute oral toxicity : LD50 (Rat): 3.200 - 3.400 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 2,0 mg/l
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg

Skin corrosion/irritation

Product:

Result: non-irritant

Remarks: Calculation method

Components:

ammonium nitrate:

Species: Rabbit

Method: OECD Test Guideline 404

Result: non-irritant

Borates, tetra sodium salts, pentahydrate:

Species: Rabbit

Result: No skin irritation

Serious eye damage/eye irritation

Product:

Result: non-irritant

Remarks: Calculation method

Components:

ammonium nitrate:

Species: Rabbit

Method: OECD Test Guideline 405

Result: Irritant

Borates, tetra sodium salts, pentahydrate:

Species: Rabbit

Assessment: Irritant

Result: Moderate eye irritation

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Triabon® 16-8-12



Version: 1.11

Date of last issue: 06.04.2023

Date of first issue: 31.03.2016

Revision Date:

06.03.2024

Respiratory or skin sensitisation

Product:

Result: non-sensitizing

Remarks: Calculation method

Components:

ammonium nitrate:

Result: Does not cause skin sensitisation.

Borates, tetra sodium salts, pentahydrate:

Test Type: Buehler Test

Species: Guinea pig

Method: OECD Test Guideline 406

Result: Does not cause skin sensitisation.

germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: Contains no hazardous ingredients according to GHS

Components:

ammonium nitrate:

Genotoxicity in vitro : Method: OECD Test Guideline 471
Result: negative

Borates, tetra sodium salts, pentahydrate:

Germ cell mutagenicity- Assessment : In vitro tests showed mutagenic effects

Carcinogenicity

Product:

Remarks: Contains no ingredient listed as a carcinogen

Components:

ammonium nitrate:

Species: Rat

Remarks: Animal testing did not show any carcinogenic effects.

Borates, tetra sodium salts, pentahydrate:

Carcinogenicity - Assessment : Carcinogenicity classification not possible from current data.

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006



Triabon® 16-8-12

Version: 1.11
Date of last issue: 06.04.2023
Date of first issue: 31.03.2016

Revision Date:
06.03.2024

Reproductive toxicity

Product:

Effects on fertility :
Remarks: This information is not available.

Effects on foetal development :
Remarks: This information is not available.

Components:

ammonium nitrate:

Effects on fertility : Species: Rat
Remarks: Animal testing did not show any effects on fertility.

Effects on foetal development : Species: Rat
Remarks: Did not show teratogenic effects in animal experiments.

Borates, tetra sodium salts, pentahydrate:

Reproductive toxicity - Assessment : In animal testing, risk of impaired fertility was shown only after administration of very high doses of this substance.
May damage fertility. May damage the unborn child.

STOT - single exposure

Product:

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Product:

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

ammonium nitrate:

Species: Rat
NOAEL: > 1.500 mg/kg
Application Route: Oral
Exposure time: 28 d

Species: Rat
NOAEL: = 256 mg/kg
Application Route: Oral

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006



Triabon® 16-8-12

Version: 1.11
Date of last issue: 06.04.2023
Date of first issue: 31.03.2016

Revision Date:
06.03.2024

Exposure time: 52 w
Method: OECD Test Guideline 453

Species: Rat
NOAEL: \geq 185 mg/kg
Application Route: by inhalation
Exposure time: 2 w
Method: Repeated Dose Inhalation Toxicity: 28-day or 14-day Study.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties

No data available

Further information

Product:

Remarks: The product was not tested. The statement was derived from products of similar structure and composition.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: Information refers to the main component.

Toxicity to bacteria : EC50 : ca. > 100 mg/l
Exposure time: 4 h
Test Type: activated sludge
Remarks: Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.
Information refers to the main component.

Components:

ammonium nitrate:

Toxicity to fish : LC50 (Fish): > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia (water flea)): 490 mg/l

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006



Triabon® 16-8-12

Version: 1.11
Date of last issue: 06.04.2023
Date of first issue: 31.03.2016

Revision Date:
06.03.2024

aquatic invertebrates	Exposure time: 48 h
	LC50 : 490 mg/l
Toxicity to algae	: EC50 (Selenastrum capricornutum (green algae)): 1.700 mg/l Exposure time: 10 d

Borates, tetra sodium salts, pentahydrate:

Toxicity to fish	: LC50 (dab): 74 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 242 mg/l Exposure time: 24 h
Toxicity to algae	: EC10 (Scenedesmus subspicatus): 24 mg/l Exposure time: 96 h

12.2 Persistence and degradability

Product:

Biodegradability	: Remarks: The organic components of the product are biodegradable. The methods for determining the biological degradability are not applicable to inorganic substances.
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Components:

ammonium nitrate:

Biodegradability	: Remarks: The methods for determining the biological degradability are not applicable to inorganic substances.
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12.3 Bioaccumulative potential

Product:

Bioaccumulation	: Remarks: No bioaccumulation is to be expected (log Pow <= 4).
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Components:

ammonium nitrate:

Bioaccumulation	: Remarks: Bioaccumulation is unlikely.
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Partition coefficient: n-octanol/water	: log Pow: -3,1
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12.4 Mobility in soil

Product:

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Triabon® 16-8-12



Version: 1.11

Date of last issue: 06.04.2023

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06.03.2024

Mobility : Remarks: No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : Product does not contain substances which are persistent, bioaccumulative, and toxic (PBT) at levels of 0.1% or higher.. Product does not contain substances which are very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Product:

Additional ecological information : There is a high probability that the product is acute not harmful to aquatic organisms. At higher pH values, which can be found in natural surface waters, an increase of toxic effects on aquatic organisms may be expected. The product has not been tested. The information is derived from the properties of the individual components.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Check if agriculture use is possible.
Contact manufacturer.

Contaminated packaging : Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

SECTION 14: Transport information

14.1 UN number or ID 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

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006



Triabon® 16-8-12

Version: 1.11
Date of last issue: 06.04.2023
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Revision Date:
06.03.2024

Segregation 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 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : contains Borates, tetra sodium salts, pentahydrate

Water hazard class (Germany) : WGK 1 slightly hazardous to water

Other regulations : This product is subject to Regulation (EU) 2019/1148; suspicious transactions, disappearance or theft of the product must be reported to the relevant authority.

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

Full text of H-Statements

H272 : May intensify fire; oxidizer.
H319 : Causes serious eye irritation.
H360FD : May damage fertility. May damage the unborn child.

Full text of other abbreviations

Eye Irrit. : Eye irritation
Ox. Sol. : Oxidizing solids
Repr. : Reproductive toxicity

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation;

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Triabon® 16-8-12



Version: 1.11
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06.03.2024

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; TECL - Thailand Existing Chemicals 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.

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