SAFETY DATA SHEET

Trinol Fosforbrinte insektmiddel

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

1.1. Product identifier

Trade name

Trinol Fosforbrinte insektmiddel

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

Relevant identified uses of the substance or mixture

None known.

Restricted to professional users.

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Trinol A/S

Søagervej 9

9500 Hobro

Danmark

+4596320064

Trinol.dk

Contact person

Trinol

E-mail

Kemi@trinol.dk

Revision

18/03/2025

SDS Version

1.0

1.4. Emergency telephone number

Contact the poison hotline: +45 82 12 12 12 (24 hour service)

See section 4 "First aid measures".

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Water-react. 1; H260, In contact with water releases flammable gases which may ignite spontaneously.

Acute Tox. 2; H300, Fatal if swallowed.

Acute Tox. 1; H310, Fatal in contact with skin.

Skin Irrit. 2; H315, Causes skin irritation.

Eye Dam. 1; H318, Causes serious eye damage.

Acute Tox. 1; H330, Fatal if inhaled.

Aquatic Acute 1; H400, Very toxic to aquatic life.

2.2. Label elements

Hazard pictogram(s)



Signal word Danger



Hazard statement(s)

In contact with water releases flammable gases which may ignite spontaneously. (H260)

Fatal if swallowed, in contact with skin or if inhaled. (H300+H310+H330)

Causes skin irritation. (H315)

Causes serious eye damage. (H318)

Very toxic to aquatic life. (H400)

Precautionary statement(s)

General

If medical advice is needed, have product container or label at hand. (P101)

Keep out of reach of children. (P102)

Prevention

Do not breathe dust. (P260)

[In case of inadequate ventilation] wear respiratory protection. (P284)

Wash hands and exposed skin thoroughly after handling. (P264)

Do not eat, drink or smoke when using this product. (P270)

Wear protective gloves/protective clothing/eye protection/face protection. (P280)

Response

IF INHALED: Remove person to fresh air and keep comfortable for breathing. (P304+P340)

Immediately call a POISON CENTER/doctor. (P310)

IF ON SKIN: Wash with plenty of water and soap. (P302+P352)

Take off contaminated clothing and wash it before reuse. (P362+P364)

IF INHALED: (P304)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. (P305+P351+P338)

If eye irritation persists: Get medical advice/attention. (P337+P313)

Storage

Store in a well-ventilated place. Keep container tightly closed. (P403+P233)

Store locked up. (P405)

Disposal

Dispose of contents/container in accordance with local regulation (P501)

Hazardous substances

Aluminiumphosphid

Ammonium carbamate

Additional labelling

EUH029, Contact with water liberates toxic gas.

EUH032, Contact with acids liberates very toxic gas.

EUH401, To avoid risks to human health and the environment, comply with the instructions for use.

2.3. Other hazards

Additional warnings

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification. This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2023/707.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Aluminiumphosphid	CAS No.: 20859-73-8 EC No.: 244-088-0 REACH: Index No.: 015-004-00-8	50 -60 vgt/vgt%	Water-react. 1, H260 Acute Tox. 2, H300 (ATE: 8.70 mg/kg) Acute Tox. 3, H311 (ATE: 460.00 mg/kg) Acute Tox. 1, H330 (ATE: 0.048 mg/L) Aquatic Acute 1, H400	
Ammonium carbamate	CAS No.: 1111-78-0	20 -30 vgt/vgt%	Acute Tox. 4, H302 (ATE: 681.00 mg/kg)	



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	EC No.: 214-185-2 REACH: Index No.:		Skin Irrit. 2, H315 Eye Dam. 1, H318		
phosphine	CAS No.: 7803-51-2 EC No.: 232-260-8 REACH: 01-2120138413-64-XXXX Index No.: 015-181-00-1	Reaction product%	Flam. Gas 1A, H220 Press. Gas (Comp.) H280 Skin Corr. 1B, H314 Acute Tox. 1, H330 Aquatic Acute 1, H400 (M=1)	[1]	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

[1] European occupational exposure limit.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the injured person into fresh air. Make sure the injured person is continuously monitored. Prevent shock by keeping the injured person warm and calm. If breathing ceases, give mouth-to-mouth resuscitation. If unconscious, roll the injured person into recovery position. Call an ambulance.

Skin contact

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

Eve contact

If in eyes: Flush eyes with plenty of water or salt water (20-30 °C) for at least 30 minutes and continue until irritation stops. Remove contact lenses. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.

Ingestion

In the case of ingestion, contact a doctor immediately. If the person is conscious, give them water. DO NOT try to induce vomiting unless this is recommended by a doctor. Hold head facing down to prevent vomit from returning to the mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.

Burns

Rinse with water until pain stops then continue to rinse for 30 minutes.

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

The product contains substances that cause serious eye damage. Contact with these substances can cause irreversible effects on the eye / serious eye damage.

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

IF exposed or concerned:

Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Dry powder (Class D), sodium chloride (granulate) or dry sand. Unsuitable extinguishing media: DO NOT USE WATER!



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5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the chemical emergency services on 72 85 20 00 (24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove flammable materials if conditions allow it. Ensure sufficient ventilation.

Avoid direct contact with spilled substances.

Ensure adequate ventilation, especially in confined areas.

Contaminated areas may be slippery.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

6.3. Methods and material for containment and cleaning up

Do not flush with water or use water-based cleaning agents.

6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid direct contact with the product.

Avoid contact during pregnancy and while nursing.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Store locked up. A sign warning of toxic materials shall be affixed the room and cupboard containing the product(s). Must be stored in a cool and well-ventilated area, away from possible sources of ignition.

Store in a dry place. Store in a closed container.

Recommended storage material

Keep only in original packaging.

Storage conditions

Protect from moisture.

Keep away from food, drinks and animal feed.

Incompatible materials

Keep only in original packaging.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

phosphine

Long term exposure limit (8 hours) (mg/m³): 0,14

Long term exposure limit (8 hours) (ppm): 0,1

Short term exposure limit (15 minutes) (mg/m³): 0,28

Short term exposure limit (15 minutes) (ppm): 0,2

Annotations:

E = Substance has an EC limit.

Statutory order 1619 on exposure limits for substances and mixtures (19/12/2024)

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DNEL

No data available.

PNEC

No data available.

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

Apply standard precautions during use of the product. Avoid inhalation of gas or dust.

Airborne gas and dust concentrations must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure emergency eyewash and showers are clearly marked.

Ensure that eyewash stations and safety showers are located within easy reach.

Hygiene measures

Take off contaminated clothing and wash it before reuse.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment

Generally

Use only CE marked protective equipment.

Respiratory Equipment

Work situation	Туре	Class	Colour	Standards	
In case of inadequate ventilation	Self contained breathing apparatus			EN137, EN139	



Recommended	Type/Category	Standards	
Dedicated work clothing should be worn.	-	-	R

Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	0.4	6 (> 480)	EN374-2, EN374-3, EN388	



Eye protection

Туре	Standards
Face shield	EN ISO 16321-1



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties



```
Physical state
      Tablets
  Colour
      Greenish
  Odour / Odour threshold
      Som hvidløg
  рН
  pH in solution
      9,2 (1 % vgt/vgt%)
  Density (g/cm<sup>3</sup>)
      1120 -1140 kg/m<sup>3</sup>
  Kinematic viscosity
      Does not apply to solids.
  Particle characteristics
      No data available.
Phase changes
  Melting point/Freezing point (°C)
      No data available.
  Softening point/range (°C)
      Does not apply to solids.
  Boiling point (°C)
      Does not apply to solids.
  Vapour pressure
      No data available.
  Relative vapour density
      Does not apply to solids.
  Decomposition temperature (°C)
      No data available.
Data on fire and explosion hazards
  Flash point (°C)
      Does not apply to solids.
  Flammability (°C)
      The material is ignitable.
  Auto-ignition temperature (°C)
      No data available.
  Lower and upper explosion limit (% v/v)
      Does not apply to solids.
Solubility
  Solubility in water
      No data available.
  n-octanol/water coefficient (LogKow)
      No data available.
  Solubility in fat (q/L)
      No data available.
9.2. Other information
  Other physical and chemical parameters
      No data available.
  Oxidizing properties
      Ikke brandfremmende. EC A.17
```

SECTION 10: Stability and reactivity

10.1. Reactivity

Contact with acids liberates very toxic gas. Contact with water liberates toxic gas.

10.2. Chemical stability



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The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

In contact with water releases flammable gases which may ignite spontaneously.

Contact with water liberates toxic gas.

Contact with acids liberates very toxic gas.

10.4. Conditions to avoid

Avoid static electricity.

10.5. Incompatible materials

Keep only in original packaging.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity

Product/substance Trinol Fosforbrinte insektmiddel

Test method: OECD - 420 Acute Oral Toxicity: Fixed Dose Method

Species: Rat
Route of exposure: Oral
Test: LD50

Result: 25-250 mg/kg

Product/substance Trinol Fosforbrinte insektmiddel

Species: Rat
Route of exposure: Dermal
Test: LD50
Result: 662,6 mg/kg

Product/substance Trinol Fosforbrinte insektmiddel

Species: Rat
Route of exposure: Inhalation
Test: LC50 (4 hours)
Result: 0,098 mg/L

Product/substance Aluminiumphosphid

Species: Rat
Route of exposure: Oral
Test: LD50
Result: 8,7 mg/kg

Product/substance Aluminiumphosphid

Species: Rat
Route of exposure: Dermal
Test: LD50

Result: 460-900 mg/kg

Product/substance Aluminiumphosphid

Species: Rat
Route of exposure: Inhalation
Test: LC50
Result: 0,048 mg/L

Product/substance Ammonium carbamate

Test method: OECD 401
Species: Rat
Route of exposure: Oral
Test: LD50

Result: 681-1470 mg/kg



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Product/substance Ammonium carbamate

Test method: OECD 402
Species: Rat
Route of exposure: Dermal
Test: LD50
Result: >5000 mg/kg

Product/substance Ammonium carbamate

Species: Rat
Route of exposure: Inhalation
Test: LC50 (4 hours)
Result: 6,6 mg/L

Fatal if swallowed.

Fatal in contact with skin.

Fatal if inhaled. Fatal if inhaled.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory sensitisation

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

Skin sensitisation

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

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

11.2. Information on other hazards

Long term effects

The product contains substances that cause serious eye damage. Contact with these substances can cause irreversible effects on the eye / serious eye damage.

Endocrine disrupting properties

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

Other information

None known.

SECTION 12: Ecological information

12.1. Toxicity

Product/substance Aluminiumphosphid Species: Fish, Oncorhynchus mykiss

 Duration:
 96 hours

 Test:
 LC50

 Result:
 9,65 μg/l

Product/substance Ammonium carbamate Species: Fish, Pimephales promelas

Duration: 96 hours



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Test: LC50 Result: 37 mg/L

Product/substance Ammonium carbamate
Species: Crustacean, Daphnia magna

 Duration:
 48 hours

 Test:
 EC50

 Result:
 63,7 mg/L

Very toxic to aquatic life.

12.2. Persistence and degradability

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

12.3. Bioaccumulative potential

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

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

12.7. Other adverse effects

This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste.

HP 3 - Flammable

HP 4 - Irritant (skin irritation and eye damage)

HP 6 - Acute toxicity

HP 12 - Release of an acute toxic gas

HP 14 – Ecotoxic

Dispose of contents/container to an approved waste disposal plant.

Commission Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

EWC code

Not applicable.

Specific labelling

Not applicable.

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 14.2 UN / ID UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other informatio n:
ADR	UN1397 ALUMINIUM PHOSPHIDE	Transport hazard class: 4.3 Label: 4.3+6.1 Classification code: WT2	I	Yes	Limited quantities: 0 Tunnel restriction code: (E) See below for additional

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	14.1 14.2 UN / ID UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other informatio n:
		***			information
IMDG	UN1397 ALUMINIUM PHOSPHIDE	Transport hazard class: 4.3 Label: 4.3+6.1 Classification code: WT2	Ī	Yes	Limited quantities: 0 EmS: F-G S-N See below for additional information .
IATA	UN1397 ALUMINIUM PHOSPHIDE	Transport hazard class: 4.3 Label: 4.3+6.1 Classification code: WT2	I	Yes	See below for additional information

^{*} Packing group

** Environmental hazards

Additional information

This product is within scope of the regulations of transport of dangerous goods.

ADR / See Table A, section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

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

Restrictions for application

Restricted to professional users.

People under the age of 18 shall not be exposed to this product.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education

No specific requirements.

SEVESO - Categories / dangerous substances

H1 - ACUTE TOXIC, Qualifying quantity (lower-tier): 5 tonnes / (upper-tier): 20 tonnes

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E1 - ENVIRONMENTAL HAZARDS, Qualifying quantity (lower-tier): 100 tonnes / (upper-tier): 200 tonnes

O2 - OTHER HAZARDS, Qualifying quantity (lower-tier): 100 tonnes / (upper-tier): 500 tonnes

O3 - OTHER HAZARDS, Qualifying quantity (lower-tier): 50 tonnes / (upper-tier): 200 tonnes phosphine

REACH, Annex XVII

Aluminiumphosphid is subject to REACH restrictions (entry 40).

phosphine is subject to REACH restrictions (entry 40).

Additional information

Not applicable.

Sources

The Danish Working Environment Authority's executive order no. 1049 of 30 May 2021 on young people's work.

Based on Council Directive 94/33 / EC of 22 June 1994 on the protection of young people at work.

Pregnant workers and workers who are breastfeeding (AT Guide A.1.8-6, amended 2024).

Executive Order no. 372 of 25 April 2016 on control of the risk of major accidents with dangerous substances.

Commission Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on

classification, labelling and packaging of substances and mixtures (CLP).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H220, Extremely flammable gas.

H260, In contact with water releases flammable gases which may ignite spontaneously.

H280, Contains gas under pressure; may explode if heated.

H300, Fatal if swallowed.

H302, Harmful if swallowed.

H311, Toxic in contact with skin.

H314, Causes severe skin burns and eye damage.

H315, Causes skin irritation.

H318, Causes serious eye damage.

H330, Fatal if inhaled.

H400, Very toxic to aquatic life.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne (European conformity)

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EuPCS = European Product Categorisation System

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

GWP = Global warming potential

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient



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MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

OECD = Organisation for Economic Co-operation and Development

PBT = Persistent, Bioaccumulative and Toxic

PNEC = Predicted No Effect Concentration

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

RRN = REACH Registration Number

SCL = A specific concentration limit

SVHC = Substances of Very High Concern

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP).

The classification of the substance/mixture in regard of environmental hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP).

The classification of the mixture in regard to physical hazards has been based on experimental data.

The safety data sheet is validated by

Krer

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: DK-en