

AnalytiChem GmbH

## Stabilizer, THM-100 (0.75M)

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## 1. Identification

#### **Product identifier**

Stabilizer, THM-100 (0.75M)

### Recommended use of the chemical and restrictions on use

#### Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

#### Uses advised against

Do not use for private purposes (household).

## Details of the supplier of the safety data sheet

Company name: AnalytiChem GmbH

ACD

Street: Stempelstraße 6
Place: D-47167 Duisburg

Telephone: 0203/5194-0 Telefax: 0203/5194-290

E-mail: info@analytichem.de

Contact person: Abteilung Produktsicherheit Telephone: 0203/5194-107/117

E-mail: produktsicherheit@analytichem.de

Internet: www.analytichem.de
Responsible Department: Abteilung Produktsicherheit

**Emergency phone number:** For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire,

Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls

accepted)

#### **Further Information**

This product is a mixture. REACH Registration Number see section 3.

## 2. Hazard(s) identification

## Classification of the chemical

## Regulation (EC) No 1272/2008

Met. Corr. 1; H290 Eye Irrit. 2; H319

Full text of hazard statements: see SECTION 16.

#### **Label elements**

## Regulation (EC) No 1272/2008

Signal word: Warning

Pictograms:



### **Hazard statements**

H290 May be corrosive to metals H319 Causes serious eye irritation

#### **Precautionary statements**

P234 Keep only in original container.



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P280 Wear protective gloves/protective clothing and 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.

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

P390 Absorb spillage to prevent material damage.

P406 Store in corrosive resistant container with a resistant inner liner.

## **Hazards not otherwise classified**

No data available

## 3. Composition/information on ingredients

#### **Mixtures**

#### **Chemical characterization**

Mixtures in aqueous solution

### Relevant ingredients

CAS No	Components	Components			
	EC No	Index No	REACH No		
	Classification (Regulation (EC) No	Classification (Regulation (EC) No 1272/2008)			
6484-52-2	ammonium nitrate			10 - < 15 %	
	229-347-8		01-2119490981-27		
	Ox. Sol. 3, Eye Irrit. 2; H272 H319				
7664-38-2	phosphoric acid	phosphoric acid			
	231-633-2	015-011-00-6	01-2119485924-24		
	Met. Corr. 1, Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1; H290 H302 H314 H318				

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

### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Components	Quantity		
	Specific Conc. L	imits, M-factors and ATE			
6484-52-2	229-347-8	ammonium nitrate	10 - < 15 %		
	oral: LD50 = 29	oral: LD50 = 2950 mg/kg			
7664-38-2	231-633-2	phosphoric acid	5 - < 10 %		
	oral: ATE = 500 Irrit. 2; H319: >=	) mg/kg Skin Corr. 1B; H314: >= 25 - 100 Skin Irrit. 2; H315: >= 10 - < 25 Eye = 10 - < 25			

#### **Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

# 4. First-aid measures

#### **Description of first aid measures**

#### **General information**

No data available

# After inhalation

Provide fresh air.

Call a doctor if you feel unwell.

## After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

In case of skin irritation, consult a physician.



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#### After contact with eyes

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.

Remove contact lenses, if present and easy to do. Continue rinsing.

#### After ingestion

Rinse mouth immediately and drink plenty of water.

Do NOT induce vomiting. Do not allow a neutralisation agent to be drunk.

Call a physician immediately.

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

Irritant

#### Indication of any immediate medical attention and special treatment needed

No data available

## 5. Fire-fighting measures

### **Extinguishing media**

#### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

#### Unsuitable extinguishing media

no restriction

## Specific hazards arising from the chemical

Non-combustible liquids

Hazardous combustion products

In case of fire may be liberated:

Nitrogen oxides (NOx)

### Special protective equipment and precautions for fire-fighters

In case of fire: Wear self-contained breathing apparatus.

In case of fire and/or explosion do not breathe fumes.

Avoid contact with skin, eyes and clothes.

### **Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

#### General advice

Corrosive to metals.

Do not breathe vapor or spray.

#### For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

**Emergency procedures** 

Consult an expert

Do not breathe dust/fume/gas/mist/vapors/spray.

## For emergency responders

Precautionary statements For emergency responders: Personal protection equipment (PPE): see section 8

### **Environmental precautions**

Do not allow to enter into surface water or drains.



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

#### For containment

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

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

Collect in closed and suitable containers for disposal.

### For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

#### Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wear breathing apparatus if exposed to vapors/dusts/aerosols.

#### Reference to other sections

Safe handling: see section 7

Personal protection equipment (PPE): see section 8

Disposal: see section 13

## 7. Handling and storage

#### Precautions for safe handling

#### Advice on safe handling

Read label before use. Handle and open container with care.

When using do not eat, drink, smoke, sniff. Use personal protection equipment.

Provide adequate ventilation. Avoid contact with skin, eyes and clothes.

Do not breathe vapor or spray.

## Advice on protection against fire and explosion

Usual measures for fire prevention.

#### Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Avoid: aerosol or mist formation Do not breathe vapor or spray.

#### Further information on handling

Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary.

Take off immediately all contaminated clothing and wash it before reuse.

### Conditions for safe storage, including any incompatibilities

## Requirements for storage rooms and vessels

Corrosive to metals.

Unsuitable container/equipment material: Metal

The product develops hydrogen in an aqueous solution in contact with metals.

# Hints on joint storage

national regulations

# Further information on storage conditions

Keep container tightly closed.

## Specific end use(s)

Laboratory chemicals

## 8. Exposure controls/personal protection

### **Control parameters**



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#### **Exposure limits**

CAS No	Substance	ppm	mg/m³	f/cc	Category	Origin
7664-38-2	Phosphoric acid	-	1		TWA (8 h)	PEL
		-	1		TWA (8 h)	REL
		-	3		STEL (15 min)	REL
7664-38-2	Phosphoric acid		1		TWA (8 h)	ACGIH-2023
			3		STEL (15 min)	ACGIH-2023

## **DNEL/DMEL values**

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
6484-52-2	ammonium nitrate			
Worker DNEL,	long-term	inhalation	systemic	36 mg/m³
Worker DNEL,	long-term	dermal	systemic	5,12 mg/kg bw/day
Consumer DN	EL, long-term	inhalation	systemic	8,9 mg/m³
Consumer DNEL, long-term		dermal	systemic	2,56 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	2,56 mg/kg bw/day
7664-38-2	phosphoric acid			
Worker DNEL,	acute	inhalation	local	2 mg/m³
Worker DNEL, long-term		inhalation	local	2,92 mg/m³
Consumer DNEL, long-term		inhalation	systemic	4,57 mg/m³
Consumer DNEL, long-term		inhalation	local	0,36 mg/m³
Consumer DNEL, long-term		oral	systemic	0,1 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	10,7 mg/m³

## PNEC values

CAS No	Substance		
Environmental compartment Value			
6484-52-2	ammonium nitrate		
Micro-organisms in sewage treatment plants (STP)  18 mg/l			

## **Exposure controls**

#### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

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

### Individual protection measures, such as personal protective equipment

## Eye/face protection

goggles

Wear eye/face protection.

## **Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the



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supplier of these gloves.

#### Skin protection

Wear suitable protective clothing. Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of the protective agents should be clarified with their suppliers.

#### Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

#### Thermal hazards

No data available

#### **Environmental exposure controls**

Do not allow to enter into surface water or drains.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Physical state: Liquid
Color: clear
Odor: odorless

Odour threshold: No data available

Melting point/freezing point:

Boiling point or initial boiling point and

No data available

No data available

boiling range:

No data available Flammability: No data available Lower explosion limits: Upper explosion limits: No data available Flash point: No data available Auto-ignition temperature: No data available No data available Decomposition temperature: Viscosity / kinematic: No data available Water solubility: completely miscible

Solubility in other solvents

No data available

Dissolution rate: No data available Partition coefficient n-octanol/water: No data available Dispersion stability: No data available Vapor pressure: No data available Vapor pressure: No data available Density: No data available Relative density: No data available No data available Bulk density: No data available Relative vapour density: Particle characteristics: No data available

#### **Other information**

## Information with regard to physical hazard classes

Explosive properties

No data available

Sustaining combustion:

No data available

Self-ignition temperature

Solid: No data available Gas: No data available



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No data available

Oxidizing properties

No data available

Other safety characteristics

Evaporation rate:

Solvent separation test:

No data available

No data available

No data available

Solvent content:

Solid content:

Sublimation point:

No data available

No data available

No data available

No data available:

Pour point:

Viscosity / dynamic: No data available Flow time: No data available

**Further Information**Corrosive to metals.

## 10. Stability and reactivity

### Reactivity

Corrosive to metals.

#### **Chemical stability**

The product is stable under storage at normal ambient temperatures.

#### Possibility of hazardous reactions

Alkali (lye)

## **Conditions to avoid**

No data available

## **Incompatible materials**

Cellulose

Metal

The product develops hydrogen in an aqueous solution in contact with metals.

## **Hazardous decomposition products**

In case of fire may be liberated:

SECTION 5: Fire fighting measures

#### **Further information**

No data available

# 11. Toxicological information

## Information on toxicological effects

### Toxicocinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

# **Acute toxicity**

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

#### **ATEmix calculated**

ATE (oral) 6920 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l



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CAS No	Components				
	Exposure route	Dose	Species	Source	Method
6484-52-2	ammonium nitrate	ammonium nitrate			
	oral	LD50 2950 mg/kg	Rat	Study report (1981)	OECD Guideline 401
7664-38-2	phosphoric acid				
	oral	ATE 500 mg/kg			

#### Irritation and corrosivity

Serious eye damage/eye irritation: Causes serious eye irritation

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

## Sensitizing effects

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

#### Carcinogenic/mutagenic/toxic effects for reproduction

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.

## Specific target organ toxicity (STOT) - single exposure

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

#### Specific target organ toxicity (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.

#### Route(s) of Entry

There are no data available on the preparation/mixture itself.

#### Specific effects in experiment on an animal

There are no data available on the preparation/mixture itself.

#### Additional information on tests

There are no data available on the preparation/mixture itself.

#### **Practical experience**

There are no data available on the preparation/mixture itself.

## Information on other hazards

### **Endocrine disrupting properties**

There are no data available on the preparation/mixture itself.

### Other information

There are no data available on the preparation/mixture itself.

## **Further information**

There are no data available on the preparation/mixture itself.

## 12. Ecological information

## **Ecotoxicity**

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



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CAS No	Components						
	Aquatic toxicity	Dose		[h]   [d]	Species	Source	Method
7664-38-2	phosphoric acid						
	Acute algae toxicity	ErC50 mg/l	> 100		Desmodesmus subspicatus	Study report (2010)	EU Method C.3
	Acute crustacea toxicity	EC50 mg/l	> 100	48 h	Daphnia magna	Study report (2010)	OECD Guideline 202
	Acute bacteria toxicity	EC50 mg/l ( )	> 1000		activated sludge of a predominantly domestic sewag	Study report (2010)	OECD Guideline 209

#### Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

#### **Bioaccumulative potential**

There are no data available on the mixture itself.

#### Mobility in soil

There are no data available on the mixture itself.

#### Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

#### **Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### Other adverse effects

Discharge into the environment must be avoided.

## **Further information**

Do not allow to enter into surface water or drains.

## 13. Disposal considerations

## Waste treatment methods

## **Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations.

Do not empty into drains.

## Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

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

## 14. Transport information

#### Land transport (ADR/RID)

UN 1805

<u>UN proper shipping name:</u> PHOSPHORIC ACID, SOLUTION

8 Transport hazard class(es): Ш Packing group: Hazard label: 8 Classification Code: C<sub>1</sub> Limited quantity: 5 L Excepted quantity: E1 Transport category: 3 Hazard No: 80



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Tunnel restriction code:

Inland waterways transport (ADN)

UN number or ID number: UN 1805

UN proper shipping name: PHOSPHORIC ACID, SOLUTION

Transport hazard class(es):8Packing group:IIIHazard label:8Classification Code:C1Limited quantity:5 LExcepted quantity:E1

Marine transport (IMDG)

UN number or ID number: UN 1805

<u>UN proper shipping name:</u> PHOSPHORIC ACID SOLUTION

Transport hazard class(es):8Packing group:IIIHazard label:8Special Provisions:223Limited quantity:5 LExcepted quantity:E1EmS:F-A, S-BSegregation group:1 - acids

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number: UN 1805

<u>UN proper shipping name:</u> PHOSPHORIC ACID, SOLUTION

Transport hazard class(es):8Packing group:IIIHazard label:8Special Provisions:A3 A803Limited quantity Passenger:1 LPassenger LQ:Y841

Excepted quantity: E1
IATA-packing instructions - Passenger:
IATA-max. quantity - Passenger:

IATA-max. quantity - Passenger: 5 L
IATA-packing instructions - Cargo: 856
IATA-max. quantity - Cargo: 60 L

**Environmental hazards** 

ENVIRONMENTALLY HAZARDOUS: No

### 15. Regulatory information

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

### **EU** regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 58

Marketing and use of explosives precursors:

This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

#### **National regulatory information**

Employment restrictions: Observe employment restrictions for young people.

Water hazard class (D): 1 - slightly hazardous to water

### 16. Other information

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#### Abbreviations and acronyms

Ox. Sol: Oxidizing solids
Met. Corr: Corrosive to metals
Acute Tox: Acute toxicity
Skin Corr: Skin corrosion
Eye Dam: Eye damage
Eye Irrit: Eye irritation

#### Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008

Classification	Classification procedure	
Met. Corr. 1; H290	On basis of test data	
Eye Irrit. 2; H319	Calculation method	

#### Relevant H statements (full text)

H272	May intensify fire; oxidizer
H290	May be corrosive to metals
H302	Harmful if swallowed

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage H319 Causes serious eye irritation

#### Other data

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. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

Provide appropriate information, instructions and training to users.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)