

Safety Data Sheet according to Regulation
(EC) No. 1907/2006 (REACH)

Printed 29.07.2015
revision 29.07.2015 (GB) Version 1.1

Air current tubes; Strömungsprüfröhrchen
000090300075_EU_EN

Dräger

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

1.1. Product identifier

Name of product Air current tubes; Strömungsprüfröhrchen
Prod-Nr CH00216, CH25301

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

Identified uses

Sector of uses [SU]

SU2 - mining (including offshore industries).
SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU24 - Scientific research and development
SU0-2 - Other activity related to manufacture and services.

Product categories [PC]

PC0 - Other
Quality control reagent

Process categories [PROC]

Industrial:
Professional:
PROC15 - Use as laboratory reagent
PROC0 - Other Process or activity:

Article categories for substances in articles without intended release
not applicable

Article categories for substances in articles with intended release
not applicable

Environmental release categories [ERC]
not determined

Remark
no

Uses advised against

Sector of uses [SU]
not determined

Product categories [PC]
not determined

Process categories [PROC]
not determined

Article categories for substances in articles without intended release
not applicable

Article categories for substances in articles with intended release
not applicable

Remark
Do not use for private purposes (household).

Recommended intended purpose(s)
Draeger tubes for air current tests.

Effect of the substance / the mixture
not applicable

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Dräger

1.3. Details of the supplier of the safety data sheet

Distributor Dräger Safety AG & Co. KGaA
Revalstr. 1, D-23560 Lübeck
Phone +49 (0) 451/882-0, Fax +49 (0) 451/882-2080
E-Mail info@draeger.com
Internet www.draeger.com

Advice Dräger Umweltmanagement
Phone +49 (0) 451 / 882-3125
Fax +49 (0) 451 / 882-73125
E-mail (competent person):
msds@draeger.com

1.4. Emergency telephone number

Emergency advice Giftinformationszentrum Nord, Göttingen; Tel. (0551) 1 92 40
Phone +49 (0) 451/ 882-2395 (Dräger Werkschutz)

Manufacturer

Dräger Safety AG & Co. KGaA
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Phone +49 (0) 451/882-0, Fax +49 (0) 451/882-2080
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to 67/548/EEC or 1999/45/EC

C; R35

R-phrases

35 Causes severe burns.

Additional hints

This article contains hazardous substances or mixtures intended to be released under normal or reasonably foreseeable conditions of use.

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

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
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Met. Corr. 1	H290	
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Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
--------------------------------------	-------------------	--------------------------

Skin Corr. 1A	H314	
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Hazard statements for physical hazards

H290 May be corrosive to metals.

Hazard statements for health hazards

H314 Causes severe skin burns and eye damage.

Hazard statements for environmental hazards

no

Additional hints

This article contains hazardous substances or mixtures intended to be released under normal or reasonably foreseeable conditions of use.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]



GHS05

Signal word

Danger

Hazard statements for physical hazards

H290 May be corrosive to metals.

Hazard statements for health hazards

H314 Causes severe skin burns and eye damage.

Hazard statements for environmental hazards

no

Precautionary Statements

General

P102 Keep out of reach of children.

P103 Read label before use.

Prevention

P234 Keep only in original container.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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

Response

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P309 + P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

P310 Immediately call a POISON CENTER/doctor/...

P390 Absorb spillage to prevent material damage.

Storage

P402 Store in a dry place.

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

P403 + P235 Store in a well-ventilated place. Keep cool.

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P420 Store away from other materials.

Disposal

P501 Contents / container to properly dispose and recycle.

Hazardous ingredients for labeling

Sulphuric acid >95%

Supplemental Hazard information (EU)

Physical properties

not applicable

Health properties

Corrosive to the respiratory tract.

Environmental properties

not determined

Special rules for supplemental label elements for certain mixtures

not applicable

Additional information

Special rules on packaging

not applicable

Special rules for labelling of plant protection products

not applicable

Remark

no

2.3. Other hazards

Adverse physicochemical effects

The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.

Adverse human health effects and symptoms

Due to its pH-value (see chapter 9), irritation of the skin and eyes cannot be ruled out.

Adverse environmental effects

not determined

Other adverse effects

Process vapours can irritate airways, skin and eyes.

Information pertaining to special dangers for human and environment

Causes severe burns.

Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

SECTION 3: Composition/ information on ingredients

3.1. Substances

not applicable

3.2. Mixtures

Description

no

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Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to 67/548/EEC
7664-93-9	231-639-5	Sulphuric acid >95%	ca. 100	C R35

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
7664-93-9	231-639-5	Sulphuric acid >95%	ca. 100	Skin Corr. 1A, H314

Additional advice
no

Labelling for contents according to regulation (EC) No 648/2004, annex VII
not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately.

In case of inhalation

Ensure of fresh air.

If intensive inhalation of fumes seek medical treatment immediately.

In case of skin contact

In case of contact with skin wash off immediately with plenty of water.

Remove contaminated clothing immediately, even underwear and shoes.

Seek medical treatment immediately.

Consult a doctor if skin irritation persists.

In case of eye contact

In case of contact with eyes rinsing with plenty of lukewarm water carefully and seek for medical treatment.

Call for a doctor immediately.

In case of ingestion

Do not induce vomiting.

Call for a doctor immediately.

Rinse out mouth thoroughly with water.

Give plenty of water to drink in small sips.

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

Physician's information / possible symptoms

not determined

Physician's information / possible dangers

Risk of stomach perforation

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

Treatment (Advice to doctor)

not determined

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Product does not burn, fire-extinguishing activities according to surrounding.

Unsuitable extinguishing media

no

5.2. Special hazards arising from the substance or mixture

In the event of fire the following can be released:

Sulfur oxide

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Use breathing apparatus with independent air supply.

Do not inhale explosion and/or combustion gases.

Additional information

Collect contaminated firefighting water separately, must not be discharged into the drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Ensure adequate ventilation.

Use breathing apparatus if exposed to vapours/dust/aerosol.

For emergency responders

Use personal protective clothing.

Use breathing apparatus if exposed to vapours/dust/aerosol.

Wear acid-resistant boots.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

Do not discharge into the subsoil/soil.

6.3. Methods and material for containment and cleaning up

Dilute with plenty of water.

Do not use organic absorbent material.

Take up with absorbent material (e.g. acid binder).

Flush away residues with water.

Additional Information

Informations for disposal see chapter 13.

6.4. Reference to other sections

not determined

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

In case of free handling thoroughly sucking off vapours is necessary.

Treatment only in suitable rooms and systems.

No special measures necessary if used correctly.

Use only acid-proof equipment.

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Use only in well-ventilated areas.
Take the usual precautions when handling with chemicals.

General protective measures

Avoid contact with eyes and skin
Do not inhale aerosols

Hygiene measures

At work do not eat, drink and smoke.
Remove soiled or soaked clothing immediately.
Work in rooms with good ventilation.
Wash hands and skin before breaks and after work.

Advice on protection against fire and explosion

The product is not combustible.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in closed original container.
Ventilate store-rooms thoroughly.

Advice on storage compatibility

Do not store together with metals.
Store at cool and aired place and at distance to alkalies.

Further information on storage conditions

Keep container tightly closed and store at cool and aired place.
Keep barrel tightly closed.
Do not store at temperature above 25°C (=77°F).

Information on storage stability

Limited stability, look up product instructions.

7.3. Specific end use(s)

Recommendation(s) for intended use

See section 1.2

Particular industry solution(s) for intended use

not applicable

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ingredients with occupational exposure limits to be monitored

CAS No	Name	Code	[mg/m3]	[ppm]	Remark
7664-93-9	sulphuric-acid	8 hours Short-term	0,05 -	- -	EU, thoracic fraction
7664-93-9	sulphuric-acid	8 hours Short-term	(1) -	- -	UK

Indicative occupational exposure limit values (91/322/EEC, 2000/39/EC, 2006/15/EC or 2009/161/EU)

CAS No	Name	Code	[mg/m3]	[ppm]	Remark
7664-93-9	Sulphuric acid (mist)	8 hours	0,05		

Additional advice

no

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8.2. Exposure controls

Respiratory protection

Breathing apparatus in the event of aerosol or mist formation.
Particle-filtering half mask, filter P2

Hand protection

Gloves (acid-resistant)

Eye protection

safety goggles

Other protection measures

Light protective clothing.
Acid-resistant protective clothing

Limitation and surveillance of the environment

not applicable

Appropriate engineering controls

not applicable

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Colour	Odour
aerosol	whitish	pungent

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	< 1	not applicable	> 80 Gew-%		suspension in water
Acid number	not determined			not applicable	no
boiling range	ca. 335 °C		ca. 1 bar		no
melting point	ca. -20 °C				no
Flash point	not applicable			not applicable	no
Vapourisation rate	not determined			not determined	no
Flammable (solid)	not applicable			not applicable	no
Flammability (gas)	not applicable			not applicable	no
Ignition temperature	not determined			not applicable	no
Self ignition temperature	not determined			not determined	no
Lower explosion limit	not applicable			not applicable	no
Upper explosion limit	not applicable			not applicable	no

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	Value	Temperature	at	Method	Remark
Vapour pressure	ca. 0,0001 hPa	ca. 20 °C			no
Relative density	ca. 1,84 g/cm ³	ca. 20 °C	ca. 1 bar		information concerns to liquid phase
Bulk density	not applicable			not applicable	not applicable
Vapour density	ca. 3,4	ab 20 °C	ca. 1 bar		no
Solubility in water	not determined	not determined	not determined	not determined	
Solubility/other	not determined	not determined	not determined	not determined	no
Partition coefficient n-octanol/water (log P O/W)	not determined	not determined		not determined	no
Decomposition temperature	not determined			not determined	no
Viscosity not determined	not determined	not determined		not applicable	no
Viscosity not determined	not determined	not determined		not applicable	no
Solvent separation test	not determined			not determined	no
Solvent concentration	not applicable			not determined	no
Water content	not determined			not determined	no
Solids content	not applicable			not determined	no
Combustion value	not applicable				
Shock sensitivity	no			not applicable	
Oxidising properties not determined					
Explosive properties not determined					
9.2. Other information Product effects hygroscopic. In case of warming up in water hydrolyse. Vapours are heavier than air.					

SECTION 10: Stability and reactivity

10.1. Reactivity

Sulphuric acid, concentrated
Corrosive to metals.
Evolution of corrosive gases/vapours.
If diluting or dissolving in water always strong heating up appears.
In aqueous solution, evolves hydrogen with metals.
Reactions with damp air.
Plastics may be corroded.

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Reactions with strong alkalis. Reactions with alkalies and metals.
10.2. Chemical stability In case of addition of water warming up. Evolution of corrosive gases/vapours. Reactions with alkalies and metals.
10.3. Possibility of hazardous reactions Reactions with light metals in the presence of moisture, with evolution of hydrogen. Reactions with metals, with evolution of hydrogen. Reactions with strong alkalies.
10.4. Conditions to avoid Corrosive to metals. Reactions with base metals, with evolution of hydrogen. exothermic reaction Reactions with reducing agents. Evolution of corrosive gases/vapours. If diluting or dissolving in water always strong heating up appears. In aqueous solution, evolves hydrogen with metals. As oxidising agent, attacks organic substances such as wood, paper, fats. Violent vapour formation under influence of water. Reactions with damp air. Corrodes aluminium. Reactions with alkalies and metals.
10.5. Incompatible materials Materials to avoid Reactions with light metals, with evolution of hydrogen. Corrodes copper and brass. Corrosive to metals. Reactions with base metals, with evolution of hydrogen. Reactions with organic substances. If diluting put acid in water, not reverse. If diluting or dissolving in water always strong heating up appears. In aqueous solution, evolves hydrogen with metals. As oxidising agent, attacks organic substances such as wood, paper, fats. Corrodes aluminium. Reactions with metals, with evolution of hydrogen. Reactions with alkalies and metals.
10.6. Hazardous decomposition products Corrosive gases/vapours Sulphurous oxides (SO _x) Sulphuric acid
Thermal decomposition
Method not determined
Remark No decomposition if used as directed.
Additional information no

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritability/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	not determined	not determined	not determined	no
LD50 acute dermal	not determined	not determined	not applicable	no
LC50 acute inhalation	510 mg/m3 (2 h)	rat	not applicable	no
Irritability skin	corrosive	not determined	not determined	no
Irritability eye	corrosive	not determined	not determined	no
Skin sensitization	not applicable	not determined	not applicable	no
Sensitization respiratory system	not applicable	not determined	not applicable	no

Subacute Toxicity - Carcinogenicity

	Value	Species	Method	Validation
Subacute Toxicity	not determined	not determined	not determined	no
Subchronic Toxicity	not determined	not determined	not determined	no
Chronic Toxicity	not determined	not determined	not determined	no
Mutagenicity	not determined	not determined	not determined	no
Reproduction-Toxicity	not determined	not determined	not determined	no
Carcinogenicity	not determined	not determined	not determined	no

Toxicity test (Additional information)

Acute oral toxicity not determinable.

Experiences made from practice

Causes corrosions.
Risk of strong eye injuries.
Product may cause irreversible eye injuries.

Additional information

The product has not been tested. The information is derived from products of similar composition.

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SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	Value	Species	Method	Validation
Fish	not determined	not determined	not determined	no
Daphnia	not determined	not determined	not determined	no
Algae	not determined	not determined	not determined	no
Bacteria	not determined	not determined	not determined	no

12.2. Persistence and degradability

Physico-chemical degradability not determined

Biological degradability not determined

Degradability not determined

Biological eliminability

Inorganic product, cannot be eliminated from the water by biological purification processes.

Degradability according to WRMG not applicable

12.3. Bioaccumulative potential not determined

12.4. Mobility in soil not determined

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Other adverse effects not determined

Behaviour in sewage plant

The product is an acid. Neutralization is normally necessary before a waste water is discharged into sewage treatment plants.

Respiration inhibition of activated sludge

	Value	Method	Remark
EC 50	not determined	not determined	no

Additional ecological information

	Value	Method	Remark
OC	not determined	not determined	no
COD	not determined	not determined	no

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	Value	Method	Remark
BOD	not determined	not determined	no
AOX	not applicable		

Contains following heavy metals and compounds of the 76/464/EWG
not applicable

General regulation

Product does not cause biological oxygen loss.
Ecological dates are not available.
Do not allow uncontrolled leakage of product into the environment.
Product is not allowed to be discharged into aquatic environment, drains or sewage treatment plants.
The information to ecology refers to main component.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste code No.	Name of waste
16 03 03*	inorganic wastes containing dangerous substances
16 05 07*	discarded inorganic chemicals consisting of or containing dangerous substances
17 02 04*	glass, plastic and wood containing or contaminated with dangerous substances

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 2008/98/EC on hazardous waste.

Recommendations for the product

Collect waste separated in suitable, labeled and lockable containers.
Remove in accordance with local official regulations.
Dispose of as hazardous waste.

There are no harmonised regulations on the disposal of chemicals in the member states of the EU. In Germany the Recycling and Waste Management Act (KrWG) stipulates recycling as a requirement.

Recommendations for packaging

Totally emptied packaging may be taken for recycling.
Barrel: return by DSD (Dualistic System Germany)

General information

The local / national waste disposal regulations are observed.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	3260	3260	3260
14.2. UN proper shipping name	Corrosive solid, acidic, inorganic, n.o.s. (Sulphuric acid, mixture)	Corrosive solid, acidic, inorganic, n.o.s. (Sulphuric acid, mixture)	Corrosive solid, acidic, inorganic, n.o.s. (Sulphuric acid, mixture)
14.3. Transport hazard class(es)	8	8	8
14.4. Packing group	II	II	II

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	ADR/RID	IMDG	IATA-DGR
14.5. Environmental hazards	No	No	No

14.6. Special precautions for user
no

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
not applicable

Land and inland navigation transport ADR/RID

Hazard label(s) 8
tunnel restriction code E
Special provisions 274
Classification code C2

Transport/further information

Preferably shipment as Excepted Quantity (E2).
Regulations concerning free quantities are to be observed.

SECTION 15: Regulatory information

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

Authorizations
not applicable

Application restrictions
no

Other regulations (EU)

no
Observe regulation 98/24/EC for employee health protection against the threat of chemical substances in the workplace.

VOC standard

Remark
not applicable

15.2. Chemical Safety Assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Training advice
not determined

Recommended uses and restrictions
National and local regulations concerning chemicals shall be observed.

Further information

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 1.0

Sources of key data used
not determined

Wording of the R/H-phrases specified in chapter 3 (not the classification of the mixture!)

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R 35 Causes severe burns.

H314 Causes severe skin burns and eye damage.

DOMINIQUE DUTSCHER SAS