

# Safety Data Sheet

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

### 1.1 Product identifier

Trade name/designation:	Potassium thiocyanate AnalAR NORMAPUR® Reag. Ph.Eur., ACS
Product No.:	27035
CAS No.:	333-20-0
Other means of identification:	Potassium rhodanide

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

Relevant identified uses:	General chemical reagent
no data available	The product, as such or as a component of a mixture, is not intended to be used by consumers (as defined by the REACH Regulation).

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

#### **VWR Singapore Pte Ltd.**

Street	18 Gul Drive
Postal code/City	Singapore 629468
Telephone	+65 6505 0760

### 1.4 Emergency phone number

Telephone	+65 (0) 6505 0760 (office hours: 8 am-5 pm)
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#### **Preparation Information**

Product Information Compliance

no data available	no data available
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## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

Hazard classes and hazard categories	Hazard statements
Serious eye damage, category 1	H318
Hazardous to the aquatic environment, chronic, category 3	H412
Acute toxicity, category 4, oral, dermal and inhalation	H302+H312+H332

### 2.2 Label elements

#### Hazard pictograms



**Signal word:** Danger

Hazard statements	
H302+H312+H332	Harmful if swallowed, in contact with skin or if inhaled.
H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements	
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash ... thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P270	Do not eat, drink or smoke when using this product.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/.../if you feel unwell.
P302+P352	IF ON SKIN: Wash with plenty of water/...
P362+P364	Take off contaminated clothing and wash it before reuse.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor/...
P312	Call a POISON CENTER/doctor/.../if you feel unwell.
P321	Specific treatment (see ... on this label).
P501	Dispose of contents/container to ...

### 2.3 Other hazards

none

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Substance name	Potassium thiocyanate
Molecular formula	KSCN
Molecular weight	97.18 g/mol
CAS No.	333-20-0

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

When in doubt or if symptoms are observed, get medical advice. Change contaminated, saturated clothing. Do not leave affected person unattended.

#### After inhalation

Remove casualty to fresh air and keep warm and at rest. In case of respiratory tract irritation, consult a physician. When in doubt or if symptoms are observed, get medical advice.

#### In case of skin contact

Take off immediately all contaminated clothing. Wash off any skin contamination immediately.

#### After eye contact:

Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist. Call a POISON CENTER or doctor/physician.

#### In case of ingestion

Rinse mouth thoroughly with water. Immediately call a POISON CENTRE/doctor. Never give anything by mouth to an unconscious person or a person with cramps.

#### Self-protection of the first aider

First aider: Pay attention to self-protection!

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

Causes serious eye damage. Risk of blindness. Nausea. Vomiting.

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

No special information on medical attention and special treatment available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

The product itself does not burn.

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

Water spray.

Dry extinguishing powder.

Alcohol resistant foam.

Carbon dioxide (CO<sub>2</sub>).

**Extinguishing media which must not be used for safety reasons**

Full water jet.

## 5.2 Special hazards arising from the substance or mixture

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

Do not allow run-off from fire-fighting to enter drains or water courses.

In case of fire: Evacuate area.

In case of fire may be liberated:

Carbon monoxide

Carbon dioxide (CO<sub>2</sub>).

Nitrogen oxides (NO<sub>x</sub>)

Sulphur oxides

## 5.3 Advice for firefighters

Non-combustible corrosive substances (liquid).

Do not breathe gas/fumes/vapour/spray.

Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

# SECTION 6: Accidental release measures

## 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Wear personal protection equipment (refer to section 8). Avoid contact with eyes. Avoid breathing dust/mist. Provide adequate ventilation. Remove victim out of the danger area. First Aid, decontamination, treatment of symptoms.

## 6.2 Environmental precautions

Avoid release to the environment.

## 6.3 Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal. Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Dispose according to local legislation.

## 6.4 Reference to other sections

Personal protection equipment: see section 8 Disposal information: see section 13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advices on safe handling  
Use extractor hood (laboratory).  
Use only in well-ventilated areas.  
Avoid breathing dust/fume/gas/mist/vapours/spray.  
Avoid contact with eyes and skin.  
Use personal protective equipment as required.  
Measures to prevent fire, aerosol and dust generation  
Usual measures for fire prevention.  
Use only in well-ventilated areas.  
Measures required to protect the environment  
Do not empty into drains.  
Collect spillage.

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

Recommended storage temperature: 15-25°C  
Storage class: 10-13  
Storage: Store in a dry place. Store in a closed container. Keep the packing dry and well sealed to prevent contamination and absorption of humidity. Hygroscopic. Packaging materials: Polyethylene (PE) Unsuitable materials and coatings of containers/equipment: Aluminium Zinc

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Does not contain substances above concentration limits fixing an occupational exposure limit.

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

no data available

#### 8.2.2 Personal protection equipment

no data available

##### *Eye/face protection*

no data available

Recommendation: no data available

##### *Skin protection*

no data available

By short-term hand contact

Suitable material:	NBR (Nitrile rubber)
Thickness of the glove material:	0,12 mm
Breakthrough time::	> 480 min
Recommended glove articles:	VWR 112-0998

By long-term hand contact

Suitable material:	NBR (Nitrile rubber)
Thickness of the glove material:	0,38 mm
Breakthrough time::	> 480 min
Recommended glove articles:	VWR 112-3717 / 112-1381

*Respiratory protection*

no data available

Suitable respiratory protection apparatus:	no data available
Recommendation:	no data available
Suitable material:	no data available
Recommendation:	no data available

*Additional information*

no data available

**8.2.3** *Environmental exposure controls*

no data available

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance	
Physical state:	solid
Colour:	white
Odour:	no data available

#### Safety relevant basic data

pH:	5-8 (50 g/l; H <sub>2</sub> O; 20 °C)
Melting point/freezing point:	175 °C
Initial boiling point and boiling range:	500 °C (1013 hPa)
Flash point:	no data available
Flammability:	not applicable
Lower and upper explosion limit	
Lower explosion limit:	no data available
Upper explosion limit:	no data available
Vapour pressure:	no data available
Relative vapour density:	no data available
Density and/or relative density	
Density:	1.61 g/cm <sup>3</sup> (20 °C)
Solubility(ies)	
Water solubility:	208 g/l (20 °C)
Partition coefficient: n-octanol/water:	no data available
Auto-ignition temperature:	no data available
Decomposition temperature:	500 °C (1013 hPa)
Viscosity	
Kinematic viscosity:	no data available
Dynamic viscosity:	no data available
Particle characteristics:	no nanoform

### 9.2 Other information

Evaporation rate:	no data available
Explosive properties:	no data available
Oxidising properties:	not applicable
Bulk density:	no data available
Refraction index:	1.558 (589 nm; 174 °C)
Dissociation constant:	no data available
Surface tension:	no data available
Henry's Law Constant:	no data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

This material is non-reactive under normal conditions.

## 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

## 10.3 Possibility of hazardous reactions

Reaction with:

Oxidising agent, strong.

Acids.

Reducing agent.

## 10.4 Conditions to avoid

No further relevant information available.

## 10.5 Incompatible materials:

No further relevant information available.

## 10.6 Hazardous decomposition products

No known hazardous decomposition products.

Decomposition products in case of fire: see section 5.

# SECTION 11: Toxicological information

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

### Acute effects

*Acute oral toxicity:*

LD50: > 854 mg/kg - Rat - (Merck KGaA)

LDLo: > 80 mg/kg - Human - (Merck KGaA)

LD50: 508 mg/kg - Rat - (OECD 401)

*Acute dermal toxicity:*

LD50: > 2000 mg/kg - Rat - (ECHA)

*Acute inhalation toxicity:*

no data available

### Irritant and corrosive effects:

*Primary irritation to the skin:*

not applicable

*Irritation to eyes:*

Causes serious eye damage.

*Irritation to respiratory tract:*

not applicable



**Respiratory or skin sensitisation**

In case of skin contact: not sensitising

After inhalation: not sensitising

**STOT-single exposure**

not applicable

**STOT-repeated exposure**

not applicable

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)****Carcinogenicity**

No indication of human carcinogenicity.

**Germ cell mutagenicity**

No indications of human germ cell mutagenicity exist.

**Reproductive toxicity**

No indications of human reproductive toxicity exist.

**Aspiration hazard**

not applicable

**Other adverse effects**

no data available

**Additional information**

no data available

**11.2 Information on other hazards**

This substance does not have endocrine disrupting properties with respect to humans.

## SECTION 12: Ecological information

**12.1 Toxicity****Fish toxicity:**

LC50: 203 mg/l (96 h) - Parker, W.R., K.G. Doe, and J.D.A. Vaughan 1988. The Acute Lethality of Potassium Cyanate and Potassium Thiocyanate to Rainbow Trout as Influenced by Water Hardness and pH. Can.Tech.Rep.Fish.Aquat.Sci. 1607:171-172 (ABS)

**Daphnia toxicity:**

LC50: 11 mg/l (48 h) - Lee, D.R. 1976. Development of an Invertebrate Bioassay to Screen Petroleum Refinery Effluents Discharged into Freshwater. Ph.D.Thesis, Virginia Polytechnic Inst.and State Univ., Blacksburg, VA :108 p.

**Algae toxicity:**

no data available

**Bacteria toxicity:**

no data available

## 12.2 Persistence and degradability

no data available

## 12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water: no data available

## 12.4 Mobility in soil:

no data available

## 12.5 Results of PBT/vPvB assessment

not applicable

## 12.6 Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to the environment.

## 12.7 Other adverse effects

no data available

# SECTION 13: Disposal considerations

## 13.1 Waste treatment methods

### Appropriate disposal / Product

Dispose according to local legislation. Consult the appropriate local waste disposal expert about waste disposal. Send to a hazardous waste incinerator facility under observation of official regulations.

Waste code product: no data available

### Appropriate disposal / Package

Dispose according to local legislation. Handle contaminated packages in the same way as the substance itself.

### Additional information

European waste management legislation

Directive 2008/98/EC (Waste Framework Directive)

National waste management legislation

No further relevant information available.

# SECTION 14: Transport information

## Land transport (ADR/RID)

No dangerous good in sense of this transport regulation.

## Sea transport (IMDG)

No dangerous good in sense of this transport regulation.

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

**Air transport (ICAO-TI / IATA-DGR)**

No dangerous good in sense of this transport regulation.

## SECTION 15: Regulatory information

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

#### National regulations

- Workplace Safety and Health Act
- Workplace Safety and Health (Permissible Exposure Levels of Toxic Substances) Order
- Environmental Protection and Management Act (EPMA) - Second Schedule, Part 1, Control of Hazardous Substances
- Maritime and Port Authority of Singapore (MPA) - Dangerous Goods, Petroleum and Explosives Regulations

## SECTION 16: Other information

#### Abbreviations and acronyms

ACGIH - American Conference of Governmental Industrial Hygienists  
 ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road  
 AGS - Committee on Hazardous Substances (Ausschuss für Gefahrstoffe)  
 CLP - Regulation on Classification, Labelling and Packaging of Substances and Mixtures  
 DFG - German Research Foundation (Deutsche Forschungsgemeinschaft)  
 DNEL - Derived No Effect Level  
 Gestis - Information system on hazardous substances of the German Social Accident Insurance (Gefahrstoffinformationssystem der Deutschen Gesetzlichen Unfallversicherung)  
 IATA-DGR - International Air Transport Association-Dangerous Goods Regulations  
 ICAO-TI - International Civil Aviation Organization-Technical Instructions  
 IMDG - International Maritime Code for Dangerous Goods  
 KOSHA - Korea Occupational Safety and Health Agency  
 LTV - Long Term Value  
 NIOSH - National Institute for Occupational Safety and Health  
 OSHA - Occupational Safety & Health Administration  
 PBT - Persistent, Bioaccumulative and Toxic  
 PNEC - Predicted No Effect Concentration  
 RID - Regulation concerning the International Carriage of Dangerous Goods by Rail  
 STV - Short Term Value  
 SVHC - Substances of Very High Concern  
 vPvB - very Persistent, very Bioaccumulative

#### Key literature references and sources for data

This Safety Data Sheet has been prepared based on information available for public as TOXNET information, European Chemicals Agency (ECHA) substance dossier, papers from international cancer research institutes (IARC Monographs), U.S. National Toxicology Program data, U.S. Agency for Toxic Substances and Disease Control (ATSDR), PubChem websites and SDS from our raw material manufacturers.

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**Additional information**

Indication of changes

Section 2

If you need an explanation of the change, contact the supplier (SDS@avantorsciences.com).

*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.*