19.09.2024 **Kit Components**

Product code	Description
CAY140-VxxAAH	**CA7xAM Reagent Set for ammonium**

Components:

51508912	Reagent AM1, Component 1 for ammonium
51508913	Reagent AM1, Component 2 for ammonium
51508914	Reagent AM2, Component 1 for ammonium
51508915	Reagent AM2, Component 2 for ammonium

SECTION 1: Identification

Other means of identification

Trade name: Reagent AM1, Component 1
Synonym: *for ammonium*

Article number: *51508912*

Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

Application of the substance / the mixture *Laboratory chemicals*

Details of the supplier of the safety data sheet
Manufacturer/Supplier:
Endress+Hauser
Conducta GmbH+Co. KG
Dieselstraße 24
D-70839 Gerlingen

Further information obtainable from:
Phone: +49 (0)7156 209-10117
E-Mail: MSDS.PCC@endress.com

Regional representation:
Endress+Hauser Australia Pty Ltd
16 Giffnock Avenue
Macquarie Park, NSW 2113
Australia

Phone: 1300 363 707
Phone: +61 2 8877 7000

Emergency telephone number: *Poison Hotline: 13 11 26*

* SECTION 2: Hazard(s) Identification

Classification of the substance or mixture

Acute toxicity - oral – Category 4 H302 Harmful if swallowed.

Label elements
GHS label elements
The product is classified and labelled according to the Globally Harmonised System (GHS).
Hazard pictograms

GHS07

Signal word *Warning*

Hazard-determining components of labelling:
Sodium salicylate (30-50 %)
Hazard statements
Harmful if swallowed.
Precautionary statements
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
Rinse mouth.

(Contd. on page 2)

(Contd. of page 1)

Dispose of contents/container in accordance with local/regional/national/international regulations.
Other hazards
The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.
Results of PBT and vPvB assessment
PBT: *Not applicable.*
vPvB: *Not applicable.*

SECTION 3: Composition and Information on Ingredients

Mixtures
Description: *Mixture: consisting of the following components.*

Dangerous components:			
CAS: 54-21-7 *EINECS: 200-198-0*	*Sodium salicylate*	*Acute toxicity - oral – Category 4, H302*	*30-50%*

Additional information: *For the wording of the listed hazard phrases refer to section 16.*

*
SECTION 4: First Aid Measures

Description of first aid measures

General information:
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation: *Supply fresh air; consult doctor in case of complaints.*

After skin contact: *Generally the product does not irritate the skin.*

After eye contact: *Rinse opened eye for several minutes under running water.*

After swallowing: *Call for a doctor immediately.*
Most important symptoms and effects, both acute and delayed
No further relevant information available.

Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: Fire Fighting Measures

Extinguishing media
Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
For safety reasons unsuitable extinguishing agents: *no further information*
Special hazards arising from the substance or mixture *No further relevant information available.*
Advice for firefighters *No further relevant information available.*
Protective equipment: *No special measures required.*

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures *Wear protective clothing.*
Environmental precautions: *Do not allow to enter sewers/ surface or ground water.*
Methods and material for containment and cleaning up:
Dispose contaminated material as waste according to section 13.
Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

(Contd. on page 3)

(Contd. of page 2)

* SECTION 7: Handling and Storage

Precautions for safe handling *No special precautions are necessary if used correctly.*
Information about fire - and explosion protection: *No special measures required.*

Conditions for safe storage, including any incompatibilities

Storage:
Requirements to be met by storerooms and receptacles: *No special requirements.*
Information about storage in one common storage facility: *Not required.*
Further information about storage conditions: *None.*
Storage class: *11*
Specific end use(s) *No further relevant information available.*

* SECTION 8: Exposure controls and personal protection

Control parameters
Ingredients with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
Additional information: *The lists valid during the making were used as basis.*

Exposure controls
Appropriate engineering controls *No further data; see section 7.*
Individual protection measures, such as personal protective equipment

General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.

Respiratory protection: *Not required.*

Hand protection
To avoid skin problems reduce the wearing of gloves to the required minimum.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
No chemical-protective gloves required.

Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Body protection: *Protective work clothing*

SECTION 9: Physical and Chemical Properties

Information on basic physical and chemical properties
General Information

Physical state	*Solid*
Colour:	*According to product specification*
Odour:	*Odourless*
Odour threshold:	*Not determined.*
Melting point/freezing point:	*Undetermined.*
Boiling point or initial boiling point and boiling range	*Undetermined.*
Flammability	*Not determined.*

(Contd. on page 4)

(Contd. of page 3)

Lower and upper explosion limit	
Lower:	*Not determined.*
Upper:	*Not determined.*
Flash point:	*Not applicable.*
Auto-ignition temperature:	*>250 °C*
Decomposition temperature:	*Not determined.*
pH	*Not applicable.*
Viscosity:	
Kinematic viscosity	*Not applicable.*
Dynamic:	*Not applicable.*
Solubility	
water:	*Soluble.*
Partition coefficient n-octanol/water (log value)	*Not determined.*
Vapour pressure:	*Not applicable.*
Density and/or relative density	
Density at 20 °C:	*1.055 g/cm³*
Relative density	*Not determined.*
Vapour density	*Not applicable.*
Particle characteristics	*Not determined.*

Other information	
Appearance:	
Form:	*Crystalline powder*
Important information on protection of health and environment, and on safety.	
Ignition temperature:	*Product is not selfigniting.*
Explosive properties:	*Product does not present an explosion hazard.* *Not determined.*
Solvent content:	
Solids content:	*100.0 %*
Change in condition	
Evaporation rate	*Not applicable.*

Information with regard to physical hazard classes	
Explosives	*Void*
Flammable gases	*Void*
Aerosols	*Void*
Oxidising gases	*Void*
Gases under pressure	*Void*
Flammable liquids	*Void*
Flammable solids	*Void*
Self-reactive substances and mixtures	*Void*
Pyrophoric liquids	*Void*
Pyrophoric solids	*Void*
Self-heating substances and mixtures	*Void*
Substances and mixtures, which emit flammable gases in contact with water	*Void*
Oxidising liquids	*Void*
Oxidising solids	*Void*
Organic peroxides	*Void*
Corrosive to metals	*Void*
Desensitised explosives	*Void*

SECTION 10: Stability and Reactivity

Reactivity *No further relevant information available.*

(Contd. on page 5)

(Contd. of page 4)

Chemical stability
Thermal decomposition / conditions to be avoided:
No decomposition if used according to specifications.
Possibility of hazardous reactions *No dangerous reactions known.*
Conditions to avoid *No further relevant information available.*
Incompatible materials: *No further relevant information available.*
Hazardous decomposition products: *No dangerous decomposition products known.*

SECTION 11: Toxicological Information

Information on hazard classes as defined in Regulation (EC) No 1272/2008
Acute toxicity *Harmful if swallowed.*

LD/LC50 values relevant for classification:		
CAS: 54-21-7 Sodium salicylate		
Oral	*LD50*	*930 mg/kg (rat)*

Information on other hazards

Endocrine disrupting properties
None of the ingredients is listed.

SECTION 12: Ecological Information

Toxicity
Aquatic toxicity: *No further relevant information available.*
Persistence and degradability *No further relevant information available.*
Other information: *The product is biodegradable.*
Bioaccumulative potential *No further relevant information available.*
Mobility in soil *No further relevant information available.*
Results of PBT and vPvB assessment
PBT: *Not applicable.*
vPvB: *Not applicable.*
Endocrine disrupting properties
The product does not contain substances with endocrine disrupting properties.
Other adverse effects
Additional ecological information:
General notes:
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

Waste treatment methods
Recommendation
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:
Recommendation: *Disposal must be made according to official regulations.*
Recommended cleansing agents: *Water, if necessary together with cleansing agents.*

SECTION 14: Transport information

UN number or ID number
ADN, IMDG, IATA *Void*
UN proper shipping name
ADG, ADN, IMDG, IATA *Void*

(Contd. on page 6)

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Transport hazard class(es)

ADG, ADN, IMDG, IATA	
Class	*Void*
Packing group	
ADG, IMDG, IATA	*Void*
Environmental hazards:	*Not applicable.*
Special precautions for user	*Not applicable.*
Maritime transport in bulk according to IMO instruments	*Not applicable.*
UN "Model Regulation":	*Void*

*
SECTION 15: Regulatory information

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

Australian Inventory of Industrial Chemicals
All ingredients are listed.

Standard for the Uniform Scheduling of Medicines and Poisons		
CAS: 54-21-7	*Sodium salicylate*	*S4*

Australia: Priority Existing Chemicals
None of the ingredients is listed.

GHS label elements
The product is classified and labelled according to the Globally Harmonised System (GHS).
Hazard pictograms

GHS07

Signal word *Warning*

Hazard-determining components of labelling:
Sodium salicylate (30-50 %)
Hazard statements
Harmful if swallowed.
Precautionary statements
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
Rinse mouth.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Directive 2012/18/EU
Named dangerous substances - ANNEX I *None of the ingredients is listed.*

National regulations:

Waterhazard class: *Water hazard class 1 (Self-assessment): slightly hazardous for water.*
Chemical safety assessment: *A Chemical Safety Assessment has not been carried out.*

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS: *PCC-TWR*
Contact: *MSDS.pcc@endress.com*
Abbreviations and acronyms:
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

(Contd. on page 7)

(Contd. of page 6)

ICAO: International Civil Aviation Organisation
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute toxicity - oral – Category 4: Acute toxicity – Category 4
*** Data compared to the previous version altered.**

SECTION 1: Identification

Other means of identification

Trade name: Reagent AM1, Component 2
Synonym: *for ammonium*

Article number: *51508913*

CAS Number:
13755-38-9
EC number:
238-373-9

Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

Application of the substance / the mixture *Laboratory chemicals*

Details of the supplier of the safety data sheet
Manufacturer/Supplier:
Endress+Hauser
Conducta GmbH+Co. KG
Dieselstraße 24
D-70839 Gerlingen

Further information obtainable from:
Phone: +49 (0)7156 209-10117
E-Mail: MSDS.PCC@endress.com

Regional representation:
Endress+Hauser Australia Pty Ltd
16 Giffnock Avenue
Macquarie Park, NSW 2113
Australia

Phone: 1300 363 707
Phone: +61 2 8877 7000

Emergency telephone number: *Poison Hotline: 13 11 26*

* SECTION 2: Hazard(s) Identification

Classification of the substance or mixture

skull and crossbones

Acute toxicity - oral – Category 2 *H300 Fatal if swallowed.*
Acute toxicity - dermal – Category 2 *H310 Fatal in contact with skin.*

Label elements
GHS label elements
The substance is classified and labelled according to the Globally Harmonised System (GHS).
Hazard pictograms

GHS06

Signal word *Danger*

Hazard-determining components of labelling:
Sodium nitroprusside (100 %)
Hazard statements
Fatal if swallowed.

(Contd. on page 2)

(Contd. of page 1)

Fatal in contact with skin.
Precautionary statements
IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
Specific treatment (see on this label).
Rinse mouth.
Take off immediately all contaminated clothing and wash it before reuse.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
Other hazards
The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.
Results of PBT and vPvB assessment
PBT: *Not applicable.*
vPvB: *Not applicable.*

SECTION 3: Composition and Information on Ingredients

Substances
CAS No. Description
CAS: 13755-38-9 Sodium nitroprusside
Identification number(s)
EC number: *238-373-9*

* SECTION 4: First Aid Measures

Description of first aid measures

General information:
Immediately remove any clothing soiled by the product.
In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation: *In case of unconsciousness place patient stably in side position for transportation.*

After skin contact:
Immediately wash with water and soap and rinse thoroughly.
Immediately rinse with water.

After eye contact: *Rinse opened eye for several minutes under running water. Then consult a doctor.*

After swallowing: *Do not induce vomiting; call for medical help immediately.*
Most important symptoms and effects, both acute and delayed
No further relevant information available.

Indication of any immediate medical attention and special treatment needed
No further relevant information available.

* SECTION 5: Fire Fighting Measures

Extinguishing media
Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
For safety reasons unsuitable extinguishing agents: *no further information*
Special hazards arising from the substance or mixture *No further relevant information available.*
Advice for firefighters *No further relevant information available.*
Protective equipment: *No special measures required.*

* SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures *Wear protective clothing.*
Environmental precautions: *Do not allow to enter sewers/ surface or ground water.*

(Contd. on page 3)

(Contd. of page 2)

Methods and material for containment and cleaning up:
Dispose contaminated material as waste according to section 13.
Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

* SECTION 7: Handling and Storage

Precautions for safe handling *Thorough dedusting.*
Information about fire - and explosion protection: *No special measures required.*

Conditions for safe storage, including any incompatibilities

Storage:
Requirements to be met by storerooms and receptacles: *No special requirements.*
Information about storage in one common storage facility: *Not required.*
Further information about storage conditions: *Keep container tightly sealed.*
Storage class: *6.1 B*
Specific end use(s) *No further relevant information available.*

* SECTION 8: Exposure controls and personal protection

Control parameters
Ingredients with limit values that require monitoring at the workplace: *Not required.*
Additional information: *The lists valid during the making were used as basis.*

Exposure controls
Appropriate engineering controls *No further data; see section 7.*
Individual protection measures, such as personal protective equipment

General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.

Respiratory protection: *Not required.*

Hand protection

Protective gloves

To avoid skin problems reduce the wearing of gloves to the required minimum.
Only use chemical-protective gloves with CE-labelling of category III.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
No chemical-protective gloves required.

Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Nitrile rubber, NBR
Natural rubber, NR

Penetration time of glove material
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Body protection: *Protective work clothing*

(Contd. on page 4)

(Contd. of page 3)

*
SECTION 9: Physical and Chemical Properties

Information on basic physical and chemical properties

General Information	
Physical state	*Solid*
Colour:	*Dark red*
Odour:	*Odourless*
Odour threshold:	*Not determined.*
Melting point/freezing point:	*Undetermined.*
Boiling point or initial boiling point and boiling range	*Undetermined.*
Flammability	*Product is not flammable.*
Lower and upper explosion limit	
Lower:	*Not determined.*
Upper:	*Not determined.*
Flash point:	*Not applicable.*
Decomposition temperature:	*>160 °C*
pH	*5*
Viscosity:	
Kinematic viscosity	*Not applicable.*
Dynamic:	*Not applicable.*
Solubility	
water at 20 °C:	*400 g/l*
Partition coefficient n-octanol/water (log value)	*Not determined.*
Vapour pressure:	*Not applicable.*
Density and/or relative density	
Density at 20 °C:	*1.71 g/cm³*
Relative density	*Not determined.*
Bulk density:	*1,000 kg/m³*
Vapour density	*Not applicable.*
Particle characteristics	*Not determined.*

Other information

Appearance:	
Form:	*Crystalline powder*
Important information on protection of health and environment, and on safety.	
Ignition temperature:	*Not determined.*
Explosive properties:	*Product does not present an explosion hazard.*
	Not determined.
Solids content:	*100.0 %*
Molecular weight	*297.95 g/mol*
Change in condition	
Evaporation rate	*Not applicable.*

Information with regard to physical hazard classes

Explosives	*Void*
Flammable gases	*Void*
Aerosols	*Void*
Oxidising gases	*Void*
Gases under pressure	*Void*
Flammable liquids	*Void*
Flammable solids	*Void*
Self-reactive substances and mixtures	*Void*
Pyrophoric liquids	*Void*
Pyrophoric solids	*Void*

(Contd. on page 5)

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Self-heating substances and mixtures	*Void*
Substances and mixtures, which emit flammable gases in contact with water	*Void*
Oxidising liquids	*Void*
Oxidising solids	*Void*
Organic peroxides	*Void*
Corrosive to metals	*Void*
Desensitised explosives	*Void*

SECTION 10: Stability and Reactivity

Reactivity *No further relevant information available.*
Chemical stability
Thermal decomposition / conditions to be avoided:
No decomposition if used according to specifications.
Possibility of hazardous reactions *No dangerous reactions known.*
Conditions to avoid *No further relevant information available.*
Incompatible materials: *No further relevant information available.*
Hazardous decomposition products: *No dangerous decomposition products known.*

SECTION 11: Toxicological Information

Information on hazard classes as defined in Regulation (EC) No 1272/2008
Acute toxicity
Fatal if swallowed.
Fatal in contact with skin.

LD/LC50 values relevant for classification:		
CAS: 13755-38-9 Sodium nitroprusside		
Oral	*LD50*	*20 mg/kg (human)*
Dermal	*LD50*	*99 mg/kg (rat)*

Information on other hazards

Endocrine disrupting properties
Substance is not listed.

SECTION 12: Ecological Information

Toxicity
Aquatic toxicity: *No further relevant information available.*
Persistence and degradability *No further relevant information available.*
Bioaccumulative potential *No further relevant information available.*
Mobility in soil *No further relevant information available.*
Results of PBT and vPvB assessment
PBT: *Not applicable.*
vPvB: *Not applicable.*
Endocrine disrupting properties
The product does not contain substances with endocrine disrupting properties.
Other adverse effects
Remark: *Very toxic for water fleas.*
Additional ecological information:
General notes:
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

(Contd. on page 6)

(Contd. of page 5)

SECTION 13: Disposal considerations

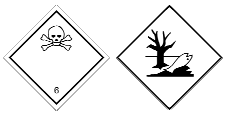
Waste treatment methods
Recommendation
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:
Recommendation: *Disposal must be made according to official regulations.*
Recommended cleansing agents: *Water, if necessary together with cleansing agents.*

*
SECTION 14: Transport information

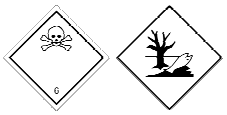
UN number or ID number
IMDG, IATA *UN1588*
UN proper shipping name
ADG *UN1588 CYANIDES, INORGANIC, SOLID, N.O.S. (Sodium nitroprusside)*
IMDG *CYANIDES, INORGANIC, SOLID, N.O.S. (Sodium nitroprusside), MARINE POLLUTANT*
IATA *Cyanides, inorganic, solid, n.o.s. (Sodium nitroprusside)*
Transport hazard class(es)

ADG



Class *6.1 (T2) Toxic substances.*
Label *6.1*

IMDG



Class *6.1 Toxic substances.*
Label *6.1*

IATA

Class *6.1 Toxic substances.*
Label *6.1*
Packing group
ADG, IMDG, IATA *II*
Environmental hazards:
Marine pollutant: *Symbol (fish and tree)*
Special marking (ADG): *Symbol (fish and tree)*
Special precautions for user *Warning: Toxic substances.*
Hazard identification number (Kemler code): *60*
EMS Number: *F-A,S-A*
Segregation groups *(SGG6) Cyanides*
Stowage Category *A*
Segregation Code *SG35 Stow "separated from" SGG1-acids*
Maritime transport in bulk according to IMO instruments *Not applicable.*

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Transport/Additional information:

ADG
Limited quantities (LQ) *500 g*
Transport category *2*
Tunnel restriction code *D/E*

IMDG
Limited quantities (LQ) *500 g*
Excepted quantities (EQ) *Code: E4*
Maximum net quantity per inner packaging: 1 g
Maximum net quantity per outer packaging: 500 g
UN "Model Regulation": *UN 1588 CYANIDES, INORGANIC, SOLID, N.O.S. (SODIUM NITROPRUSSIDE), 6.1, II*

* SECTION 15: Regulatory information

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

Australian Inventory of Industrial Chemicals
Substance is listed.

Standard for the Uniform Scheduling of Medicines and Poisons
S4

Australia: Priority Existing Chemicals
Substance is not listed.

GHS label elements
The substance is classified and labelled according to the Globally Harmonised System (GHS).
Hazard pictograms

GHS06

Signal word *Danger*

Hazard-determining components of labelling:
Sodium nitroprusside (100 %)
Hazard statements
Fatal if swallowed.
Fatal in contact with skin.
Precautionary statements
IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
Specific treatment (see on this label).
Rinse mouth.
Take off immediately all contaminated clothing and wash it before reuse.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Directive 2012/18/EU
Named dangerous substances - ANNEX I *Substance is not listed.*
Seveso category *H2 ACUTE TOXIC*
Qualifying quantity (tonnes) for the application of lower-tier requirements *50 t*
Qualifying quantity (tonnes) for the application of upper-tier requirements *200 t*

National regulations:

Waterhazard class: *Water hazard class 1 (Self-assessment): slightly hazardous for water.*
Chemical safety assessment: *A Chemical Safety Assessment has not been carried out.*

(Contd. on page 8)

(Contd. of page 7)

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS: *PCC-TWR*
Contact: *MSDS.pcc@endress.com*
Abbreviations and acronyms:
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute toxicity - oral – Category 2: Acute toxicity – Category 2
*** Data compared to the previous version altered.**

SECTION 1: Identification

Other means of identification

Trade name: Reagent AM2, Component 1
Synonym: *for ammonium*

Article number: *51508914*

CAS Number:
1310-73-2
EC number:
215-185-5

Index number:
011-002-00-6

Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

Application of the substance / the mixture *Laboratory chemicals*

Details of the supplier of the safety data sheet
Manufacturer/Supplier:
Endress+Hauser
Conducta GmbH+Co. KG
Dieselstraße 24
D-70839 Gerlingen

Further information obtainable from:
Phone: +49 (0)7156 209-10117
E-Mail: MSDS.PCC@endress.com

Regional representation:
Endress+Hauser Australia Pty Ltd
16 Giffnock Avenue
Macquarie Park, NSW 2113
Australia

Phone: 1300 363 707
Phone: +61 2 8877 7000

Emergency telephone number: *Poison Hotline: 13 11 26*

SECTION 2: Hazard(s) Identification

Classification of the substance or mixture

corrosion

Skin corrosion/irritation – Category 1A H314 Causes severe skin burns and eye damage.

Acute toxicity - oral – Category 4 H302 Harmful if swallowed.

Label elements
GHS label elements
The substance is classified and labelled according to the Globally Harmonised System (GHS).

(Contd. on page 2)

(Contd. of page 1)

Hazard pictograms

GHS05 GHS07

Signal word *Danger*

Hazard-determining components of labelling:
Sodium hydroxide (100 %)
Hazard statements
Harmful if swallowed.
Causes severe skin burns and eye damage.
Precautionary statements
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor.
Specific treatment (see on this label).
Dispose of contents/container in accordance with local/regional/national/international regulations.
Other hazards
The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.
Results of PBT and vPvB assessment
PBT: *Not applicable.*
vPvB: *Not applicable.*

SECTION 3: Composition and Information on Ingredients

Substances
CAS No. Description
CAS: 1310-73-2 Sodium hydroxide
Identification number(s)
EC number: *215-185-5*
Index number: *011-002-00-6*

SECTION 4: First Aid Measures

Description of first aid measures

General information:
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation: *In case of unconsciousness place patient stably in side position for transportation.*

After skin contact:
Immediately wash with water and soap and rinse thoroughly.
Immediately rinse with water.

After eye contact: *Rinse opened eye for several minutes under running water. Then consult a doctor.*

After swallowing:
Call for a doctor immediately.
Drink plenty of water and provide fresh air. Call for a doctor immediately.
Most important symptoms and effects, both acute and delayed
No further relevant information available.

(Contd. on page 3)

(Contd. of page 2)

Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: Fire Fighting Measures

Extinguishing media
Suitable extinguishing agents: *Use fire extinguishing methods suitable to surrounding conditions.*
For safety reasons unsuitable extinguishing agents: *no further information*
Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.
During heating or in case of fire poisonous gases are produced.
Advice for firefighters *No further relevant information available.*
Protective equipment:
Wear self-contained respiratory protective device.
Mount respiratory protective device.

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
Wear protective clothing.
Environmental precautions: *Do not allow to enter sewers/ surface or ground water.*
Methods and material for containment and cleaning up:
Use neutralising agent.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and Storage

Precautions for safe handling
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.
Information about fire - and explosion protection: *Keep respiratory protective device available.*

Conditions for safe storage, including any incompatibilities

Storage:
Requirements to be met by storerooms and receptacles:
Use only receptacles specifically permitted for this substance/product.
Unsuitable material for receptacle: aluminium.
Information about storage in one common storage facility: *Not required.*
Further information about storage conditions:
Store in dry conditions.
Keep container tightly sealed.
Storage class: *8 B*
Specific end use(s) *No further relevant information available.*

(Contd. on page 4)

(Contd. of page 3)

SECTION 8: Exposure controls and personal protection

Control parameters

Ingredients with limit values that require monitoring at the workplace:	
CAS: 1310-73-2 Sodium hydroxide	
WES (Australia)	*Peak limitation: 2 mg/m³*

Additional information: *The lists valid during the making were used as basis.*

Exposure controls
Appropriate engineering controls *No further data; see section 7.*
Individual protection measures, such as personal protective equipment

General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

Respiratory protection:
Use suitable respiratory protective device only when aerosol or mist is formed.
Filter P2
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Hand protection

Protective gloves

To avoid skin problems reduce the wearing of gloves to the required minimum.
Only use chemical-protective gloves with CE-labelling of category III.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Material of gloves
Recommended thickness of the material: ≥ 0.11 mm
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Nitrile rubber, NBR
Chloroprene rubber, CR

Penetration time of glove material
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye/face protection

Tightly sealed goggles

Body protection: *Protective work clothing*

*

SECTION 9: Physical and Chemical Properties

Information on basic physical and chemical properties
General Information

Physical state	*Solid*
Colour:	*White*
Odour:	*Odourless*

(Contd. on page 5)

(Contd. of page 4)

Odour threshold:	*Not determined.*
Melting point/freezing point:	*323 °C*
	323 °C
Boiling point or initial boiling point and boiling range	*1,390 °C*
Flammability	*Product is not flammable.*
Lower and upper explosion limit	
Lower:	*Not determined.*
Upper:	*Not determined.*
Flash point:	*Not applicable.*
Decomposition temperature:	*Not determined.*
pH	*20*
Viscosity:	
Kinematic viscosity	*Not applicable.*
Dynamic:	*Not applicable.*
Solubility	
water at 20 °C:	*1090 g/l*
Partition coefficient n-octanol/water (log value)	*Not determined.*
Vapour pressure:	*Not applicable.*
Density and/or relative density	
Density at 20 °C:	*2.13 g/cm³*
Relative density	*Not determined.*
Vapour density	*Not applicable.*
Particle characteristics	*Not determined.*
Other information	
Appearance:	
Form:	*Granulate*
Important information on protection of health and environment, and on safety.	
Ignition temperature:	*Not determined.*
Explosive properties:	*Product does not present an explosion hazard.*
	Not determined.
Solids content:	*100.0 %*
Molecular weight	*40 g/mol*
Change in condition	
Evaporation rate	*Not applicable.*
Information with regard to physical hazard classes	
Explosives	*Void*
Flammable gases	*Void*
Aerosols	*Void*
Oxidising gases	*Void*
Gases under pressure	*Void*
Flammable liquids	*Void*
Flammable solids	*Void*
Self-reactive substances and mixtures	*Void*
Pyrophoric liquids	*Void*
Pyrophoric solids	*Void*
Self-heating substances and mixtures	*Void*
Substances and mixtures, which emit flammable gases in contact with water	*Void*
Oxidising liquids	*Void*
Oxidising solids	*Void*
Organic peroxides	*Void*
Corrosive to metals	*Void*

(Contd. on page 6)

(Contd. of page 5)

Desensitised explosives *Void*

SECTION 10: Stability and Reactivity

Reactivity *No further relevant information available.*
Chemical stability
Thermal decomposition / conditions to be avoided:
No decomposition if used according to specifications.
Possibility of hazardous reactions
Reacts with light alloys to form hydrogen.
Reacts with metals forming hydrogen.
Diluting or dissolving in water always causes rapid heating.
Conditions to avoid *No further relevant information available.*
Incompatible materials: *No further relevant information available.*
Hazardous decomposition products: *No dangerous decomposition products known.*

SECTION 11: Toxicological Information

Information on hazard classes as defined in Regulation (EC) No 1272/2008
Acute toxicity *Harmful if swallowed.*

LD/LC50 values relevant for classification:		
CAS: 1310-73-2 Sodium hydroxide		
Oral	*LD50*	*2,000 mg/kg (rat)*
Inhalative	*LC50/4 h*	*125 mg/l (fish)*

Skin corrosion/irritation *Causes severe skin burns and eye damage.*
Information on other hazards

Endocrine disrupting properties
Substance is not listed.

SECTION 12: Ecological Information

Toxicity
Aquatic toxicity: *No further relevant information available.*
Persistence and degradability *No further relevant information available.*
Bioaccumulative potential *No further relevant information available.*
Mobility in soil *No further relevant information available.*
Results of PBT and vPvB assessment
PBT: *Not applicable.*
vPvB: *Not applicable.*
Endocrine disrupting properties
The product does not contain substances with endocrine disrupting properties.
Other adverse effects
Remark: *Harmful to water fleas*
Additional ecological information:
General notes:
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

(Contd. on page 7)

(Contd. of page 6)

SECTION 13: Disposal considerations

Waste treatment methods
Recommendation
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:
Recommendation: *Disposal must be made according to official regulations.*
Recommended cleansing agents: *Water, if necessary together with cleansing agents.*

*
SECTION 14: Transport information

UN number or ID number
IMDG, IATA *UN1823*
UN proper shipping name
ADG *UN1823 SODIUM HYDROXIDE, SOLID*
IMDG *SODIUM HYDROXIDE, SOLID*
IATA *Sodium hydroxide, solid*
Transport hazard class(es)

ADG

Class *8 (C6) Corrosive substances.*
Label *8*

IMDG, IATA

Class *8 Corrosive substances.*
Label *8*
Packing group
ADG, IMDG, IATA *II*
Environmental hazards: *Not applicable.*
Special precautions for user *Warning: Corrosive substances.*
Hazard identification number (Kemler code): *80*
EMS Number: *F-A,S-B*
Segregation groups *(SGG18) Alkalis*
Stowage Category *A*
Segregation Code *SG35 Stow "separated from" SGG1-acids*
Maritime transport in bulk according to IMO instruments *Not applicable.*

Transport/Additional information:

ADG
Limited quantities (LQ) *1 kg*
Transport category *2*
Tunnel restriction code *E*

IMDG
Limited quantities (LQ) *1 kg*
Excepted quantities (EQ) *Code: E2*
Maximum net quantity per inner packaging: 30 g
Maximum net quantity per outer packaging: 500 g

(Contd. on page 8)

(Contd. of page 7)

UN "Model Regulation": *UN 1823 SODIUM HYDROXIDE, SOLID, 8, II*

SECTION 15: Regulatory information

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

Australian Inventory of Industrial Chemicals
Substance is listed.

Standard for the Uniform Scheduling of Medicines and Poisons
S5, S6, S10

Australia: Priority Existing Chemicals
Substance is not listed.

GHS label elements
GHS label elements
The substance is classified and labelled according to the Globally Harmonised System (GHS).
Hazard pictograms

GHS05 GHS07

Signal word *Danger*

Hazard-determining components of labelling:
Sodium hydroxide (100 %)
Hazard statements
Harmful if swallowed.
Causes severe skin burns and eye damage.
Precautionary statements
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor.
Specific treatment (see on this label).
Dispose of contents/container in accordance with local/regional/national/international regulations.

Directive 2012/18/EU
Named dangerous substances - ANNEX I *Substance is not listed.*

National regulations:

Waterhazard class: *Water hazard class 1 (Assessment by list): slightly hazardous for water.*
Chemical safety assessment: *A Chemical Safety Assessment has not been carried out.*

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS: *PCC-TWR*
Contact: *MSDS.pcc@endress.com*
Abbreviations and acronyms:
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)

(Contd. on page 9)

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LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute toxicity - oral – Category 4: Acute toxicity – Category 4
Skin corrosion/irritation – Category 1A: Skin corrosion/irritation – Category 1A
*** Data compared to the previous version altered.**

SECTION 1: Identification

Other means of identification

Trade name: **Reagent AM2, Component 2**
Synonym: *for ammonium*

Article number: *51508915*

CAS Number:
51580-86-0
EC number:
220-767-7

Index number:
613-030-01-7

Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

Application of the substance / the mixture *Laboratory chemicals*

Details of the supplier of the safety data sheet
Manufacturer/Supplier:
Endress+Hauser
Conducta GmbH+Co. KG
Dieselstraße 24
D-70839 Gerlingen

Further information obtainable from:
Phone: +49 (0)7156 209-10117
E-Mail: MSDS.PCC@endress.com

Regional representation:
Endress+Hauser Australia Pty Ltd
16 Giffnock Avenue
Macquarie Park, NSW 2113
Australia

Phone: 1300 363 707
Phone: +61 2 8877 7000

Emergency telephone number: *Poison Hotline: 13 11 26*

SECTION 2: Hazard(s) Identification

Classification of the substance or mixture

Acute toxicity - oral – Category 4	*H302 Harmful if swallowed.*
Eye damage/irritation – Category 2A	*H319 Causes serious eye irritation.*
Specific target organ toxicity (single exposure) – Category 3	*H335 May cause respiratory irritation.*

Label elements
GHS label elements
The substance is classified and labelled according to the Globally Harmonised System (GHS).
Hazard pictograms

GHS07

(Contd. on page 2)

(Contd. of page 1)

Signal word *Warning*

Hazard-determining components of labelling:
Sodium dichloroisocyanurate dihydrate (100 %)
Hazard statements
Harmful if swallowed.
Causes serious eye irritation.
May cause respiratory irritation.
Precautionary statements
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wear eye protection / face protection.
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Dispose of contents/container in accordance with local/regional/national/international regulations.
Additional information:
Contact with acids liberates toxic gas.
Other hazards
The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.
Results of PBT and vPvB assessment
PBT: *Not applicable.*
vPvB: *Not applicable.*

SECTION 3: Composition and Information on Ingredients

Substances
CAS No. Description
CAS: 51580-86-0 Sodium dichloroisocyanurate dihydrate
Identification number(s)
EC number: *220-767-7*
Index number: *613-030-01-7*

SECTION 4: First Aid Measures

Description of first aid measures

General information:
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation: *Supply fresh air; consult doctor in case of complaints.*

After skin contact: *Generally the product does not irritate the skin.*

After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:
Rinse out mouth and then drink plenty of water.
Induce vomiting only, if affected person is fully conscious.
Call for a doctor immediately.
Most important symptoms and effects, both acute and delayed
Breathing difficulty
Coughing

Indication of any immediate medical attention and special treatment needed
No further relevant information available.

(Contd. on page 3)

(Contd. of page 2)

SECTION 5: Fire Fighting Measures

Extinguishing media
Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
For safety reasons unsuitable extinguishing agents: *no further information*
Special hazards arising from the substance or mixture *No further relevant information available.*
Advice for firefighters *No further relevant information available.*
Protective equipment: *No special measures required.*

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
Avoid formation of dust.
Ensure adequate ventilation
Wear protective clothing.
Environmental precautions: *Do not allow to enter sewers/ surface or ground water.*
Methods and material for containment and cleaning up:
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and Storage

Precautions for safe handling *Ensure good ventilation/exhaustion at the workplace.*
Information about fire - and explosion protection: *No special measures required.*

Conditions for safe storage, including any incompatibilities

Storage:
Requirements to be met by storerooms and receptacles: *No special requirements.*
Information about storage in one common storage facility: *Not required.*
Further information about storage conditions:
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
Storage class: *11*
Specific end use(s) *No further relevant information available.*

SECTION 8: Exposure controls and personal protection

Control parameters

Ingredients with limit values that require monitoring at the workplace:	
CAS: 51580-86-0 Sodium dichloroisocyanurate dihydrate	
WES (Australia)	*Short-term value: 0.07 mg/m³* *Long-term value: 0.02 mg/m³* *Sen, as -NCO*

Additional information: *The lists valid during the making were used as basis.*

Exposure controls
Appropriate engineering controls *No further data; see section 7.*
Individual protection measures, such as personal protective equipment

General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing

(Contd. on page 4)

(Contd. of page 3)

Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.

Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Hand protection

Protective gloves

To avoid skin problems reduce the wearing of gloves to the required minimum.
Only use chemical-protective gloves with CE-labelling of category III.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Nitrile rubber, NBR

Penetration time of glove material
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye/face protection

Tightly sealed goggles

Body protection: *Protective work clothing*

*
SECTION 9: Physical and Chemical Properties

Information on basic physical and chemical properties

General Information	
Physical state	*Solid*
Colour:	*White*
Odour:	*Like chlorine*
Odour threshold:	*Not determined.*
Melting point/freezing point:	*250 °C*
Boiling point or initial boiling point and boiling range	*Undetermined.*
Flammability	*Product is not flammable.*
Lower and upper explosion limit	
Lower:	*Not determined.*
Upper:	*Not determined.*
Flash point:	*Not applicable.*
Auto-ignition temperature:	*250 °C*
Decomposition temperature:	*> 240 °C*
pH	*6.7*
Viscosity:	
Kinematic viscosity	*Not applicable.*
Dynamic:	*Not applicable.*
Solubility	
water at 25 °C:	*250 g/l*
Partition coefficient n-octanol/water (log value)	*Not determined.*
Vapour pressure:	*Not applicable.*

(Contd. on page 5)

(Contd. of page 4)

Density and/or relative density	
Density:	*Not determined.*
Relative density	*Not determined.*
Bulk density:	*980 kg/m³*
Vapour density	*Not applicable.*
Particle characteristics	*Not determined.*
Other information	
Appearance:	
Form:	*Granulate*
Important information on protection of health and environment, and on safety.	
Ignition temperature:	*Not determined.*
Explosive properties:	*Product does not present an explosion hazard.* *Not determined.*
Solids content:	*100.0 %*
Molecular weight	*255.98 g/mol*
Change in condition	
Evaporation rate	*Not applicable.*
Information with regard to physical hazard classes	
Explosives	*Void*
Flammable gases	*Void*
Aerosols	*Void*
Oxidising gases	*Void*
Gases under pressure	*Void*
Flammable liquids	*Void*
Flammable solids	*Void*
Self-reactive substances and mixtures	*Void*
Pyrophoric liquids	*Void*
Pyrophoric solids	*Void*
Self-heating substances and mixtures	*Void*
Substances and mixtures, which emit flammable gases in contact with water	*Void*
Oxidising liquids	*Void*
Oxidising solids	*Void*
Organic peroxides	*Void*
Corrosive to metals	*Void*
Desensitised explosives	*Void*

SECTION 10: Stability and Reactivity

Reactivity *No further relevant information available.*
Chemical stability
Thermal decomposition / conditions to be avoided: *To avoid thermal decomposition do not overheat.*
Possibility of hazardous reactions
Reacts with amines.
Reacts with strong acids.
Conditions to avoid *No further relevant information available.*
Incompatible materials: *No further relevant information available.*
Hazardous decomposition products: *Poisonous gases/vapours*

SECTION 11: Toxicological Information

Information on hazard classes as defined in Regulation (EC) No 1272/2008
Acute toxicity *Harmful if swallowed.*

(Contd. on page 6)

(Contd. of page 5)

LD/LC50 values relevant for classification:		
CAS: 51580-86-0 Sodium dichloroisocyanurate dihydrate		
Oral	*LD50*	*550-1,600 mg/kg (rat)*
Dermal	*LD50*	*>5,000 mg/kg (rabbit)*

Serious eye damage/irritation *Causes serious eye irritation.*
STOT-single exposure *May cause respiratory irritation.*
Information on other hazards

Endocrine disrupting properties
Substance is not listed.

SECTION 12: Ecological Information

Toxicity
Aquatic toxicity: *No further relevant information available.*
Persistence and degradability *No further relevant information available.*
Bioaccumulative potential *No further relevant information available.*
Mobility in soil *No further relevant information available.*
Results of PBT and vPvB assessment
PBT: *Not applicable.*
vPvB: *Not applicable.*
Endocrine disrupting properties
The product does not contain substances with endocrine disrupting properties.
Other adverse effects
Additional ecological information:
General notes:
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

SECTION 13: Disposal considerations

Waste treatment methods
Recommendation
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:
Recommendation: *Disposal must be made according to official regulations.*
Recommended cleansing agents: *Water, if necessary together with cleansing agents.*

SECTION 14: Transport information

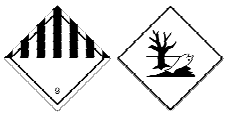
UN number or ID number
IMDG, IATA *UN3077*
UN proper shipping name
ADG *UN3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Sodium dichloroisocyanurate dihydrate)*
IMDG *ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Sodium dichloroisocyanurate dihydrate), MARINE POLLUTANT*
IATA *Environmentally hazardous substance, solid, n.o.s. (containing Sodium dichloroisocyanurate dihydrate)*

(Contd. on page 7)

(Contd. of page 6)

Transport hazard class(es)

ADG



Class	*9 (M7) Miscellaneous dangerous substances and articles.*
Label	*9*

IMDG, IATA

Class	*9 Miscellaneous dangerous substances and articles.*
Label	*9*
Packing group	
ADG, IMDG, IATA	*III*
Environmental hazards:	
Marine pollutant:	*Symbol (fish and tree)*
Special marking (ADG):	*Symbol (fish and tree)*
Special marking (IATA):	*Symbol (fish and tree)*
Special precautions for user	*Warning: Miscellaneous dangerous substances and articles.*
Hazard identification number (Kemler code):	*60*
EMS Number:	*F-A,S-F*
Stowage Category	*A*
Stowage Code	*SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.*
Maritime transport in bulk according to IMO instruments	*Not applicable.*

Transport/Additional information:

ADG	
Limited quantities (LQ)	*5 kg*
Transport category	*3*
Tunnel restriction code	*E*

IMDG	
Limited quantities (LQ)	*5 kg*
Excepted quantities (EQ)	*Code: E1* *Maximum net quantity per inner packaging: 30 g* *Maximum net quantity per outer packaging: 1000 g*
UN "Model Regulation":	*UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (SODIUM DICHLOROISOCYANURATE DIHYDRATE), 9, III*

SECTION 15: Regulatory information

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

Australian Inventory of Industrial Chemicals
Substance is listed.

Standard for the Uniform Scheduling of Medicines and Poisons
Substance is not listed.

Australia: Priority Existing Chemicals
Substance is not listed.

(Contd. on page 8)

(Contd. of page 7)

GHS label elements
The substance is classified and labelled according to the Globally Harmonised System (GHS).
Hazard pictograms

GHS07

Signal word *Warning*

Hazard-determining components of labelling:
Sodium dichloroisocyanurate dihydrate (100 %)
Hazard statements
Harmful if swallowed.
Causes serious eye irritation.
May cause respiratory irritation.
Precautionary statements
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wear eye protection / face protection.
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Directive 2012/18/EU
Named dangerous substances - ANNEX I *Substance is not listed.*
Seveso category *E1 Hazardous to the Aquatic Environment*
Qualifying quantity (tonnes) for the application of lower-tier requirements *100 t*
Qualifying quantity (tonnes) for the application of upper-tier requirements *200 t*

National regulations:

Waterhazard class: *Water hazard class 2 (Self-assessment): hazardous for water.*
Chemical safety assessment: *A Chemical Safety Assessment has not been carried out.*

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS: *PCC-TWR*
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Abbreviations and acronyms:
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute toxicity - oral – Category 4: Acute toxicity – Category 4
Eye damage/irritation – Category 2A: Serious eye damage/eye irritation – Category 2A
Specific target organ toxicity (single exposure) – Category 3: Specific target organ toxicity (single exposure) – Category 3
*** Data compared to the previous version altered.**