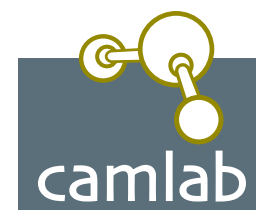


Material Safety Data Sheet

According to 91/155 EEC



Printing date 26.01.2006

Reviewed on 26.01.2006

* 1 Identification of substance:

- **Product details:** Reagent for water analysis
- **Product name:** Ammonia Salicylate F5 ml
- **Catalogue number:** CW/53.11.60, CW/53.11.68
- **Supplier:**
Camlab Limited
Camlab House, Norman Way, Over, Cambridge CB4 5WE
United Kingdom
Tel: +44 (0)1954 233100
- **Informing department:** Technical Support
- **Emergency information:**
National Poisons Information Service, United kingdom
Tel: 0870 600 6266 (24 hours) • <http://www.npis.org/>

* 2 Composition/Data on components:

- **Chemical characterization**
- **Description:** Preparation contains anorganic and organic compounds.

- **Dangerous components:**

CAS: 54-21-7 EINECS: 200-198-0	sodium salicylate	Xn; R 22-36	45-50%
CAS: 13755-38-9 EINECS: 238-373-9	sodium nitroprusside dihydrate	T; R 25	≤ 2.5%

- **Additional information** For the wording of the listed risk phrases refer to section 16.

* 3 Hazards identification

- **Hazard designation:**



Xn Harmful

- **Information pertaining to particular dangers for man and environment**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 22 Harmful if swallowed.

R 36 Irritating to eyes.

- **Classification system**

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

* 4 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.

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Material Safety Data Sheet

According to 91/155 EEC

Printing date 26.01.2006

Reviewed on 26.01.2006

Product name: Ammonia Salicylate F5 ml

(Contd. of page 1)

- **After inhalation** Supply fresh air and call for doctor for safety reasons.
 - **After skin contact** Instantly wash with water and soap and rinse thoroughly.
 - **After eye contact**
Rinse opened eye for several minutes under running water.
Call a doctor immediately.
 - **After swallowing**
Drink copious amounts of water and provide fresh air. Instantly call for doctor.
Induce vomiting.
 - **Information for doctor**
 - **The following symptoms may occur:**
after swallowing:
fever
breathing difficulty
disorientation
headache
sickness
diarrhoea
dizziness
gastric pain
vomiting
after inhalation:
coughing
mucous membrane irritation
 - **Danger** Danger of system failure.
-

* 5 Fire fighting measures

- **Suitable extinguishing agents**
CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
 - **Special hazards caused by the material, its products of combustion or resulting gases:**
Formation of toxic gases is possible during heating or in case of fire.
cyanide compounds, sodium monoxide
nitrous gases
 - **Protective equipment:**
Wear self-contained breathing apparatus.
Wear full protective suit.
 - **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Collect contaminated fire fighting water separately. It must not enter drains.
-

* 6 Accidental release measures

- **Person-related safety precautions:**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
 - **Measures for environmental protection:** Do not allow product to reach sewage system or water bodies.
 - **Measures for cleaning/collecting:**
Collect mechanically.
Ensure adequate ventilation.
Dispose of contaminated material as waste according to item 13.
-

GB

(Contd. on page 3)

Material Safety Data Sheet

According to 91/155 EEC

Printing date 26.01.2006

Reviewed on 26.01.2006

Product name: Ammonia Salicylate F5 ml

(Contd. of page 2)

* 7 Handling and storage

- **Handling**
- **Information for safe handling:**
 - Any deposit of dust which cannot be avoided must be removed regularly.
 - Keep containers tightly sealed.
 - Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** Protect from heat.
- **Storage**
- **Requirements to be met by storerooms and containers:** Store in cool location.
- **Information about storage in one common storage facility:** store away from solvents
- **Further information about storage conditions:**
 - Keep container tightly sealed.
 - Protect from heat and direct sunlight.
 - Store under dry conditions.
 - Protect from humidity and keep away from water.
 - Protect from the effects of light.

* 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components 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 that were valid during the compilation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**
 - Keep away from foodstuffs, beverages and food.
 - Take off immediately all contaminated clothing
 - Wash hands during breaks and at the end of the work.
 - Avoid contact with the eyes and skin.
- **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
- **Recommended filter device for short term use:** Filter P2
- **Protection of hands:**
 - 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.
 - After use of gloves apply skin-cleaning agents and skin cosmetics.
- **Material of gloves**
 - nitrile rubber, NBR
 - 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.
- **Penetration time of glove material**
 - Value for the permeation: Level ≥ 6 (480 min)
 - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Tightly sealed safety glasses.
- **Body protection:** Protective work clothing.

* 9 Physical and chemical properties:

- | | |
|--|-----------|
| · Form: | Powder |
| · Colour: | Whitish |
| · Odour: | Odourless |
| · Melting point/Melting range: Not determined | |
| · Boiling point/Boiling range: 1461°C | |

(Contd. on page 4)

Material Safety Data Sheet

According to 91/155 EEC

Printing date 26.01.2006

Reviewed on 26.01.2006

Product name: Ammonia Salicylate F5 ml

(Contd. of page 3)

· Flash point:	Not applicable
· Danger of explosion:	Product is not explosive.
· Density at 20°C	1.247 g/cm ³
· Solubility in / Miscibility with Water:	Soluble
· pH-value (50 g/l) at 20°C:	8.1
· Solvent content:	
Organic solvents:	0.0 %
· Solids content:	100.0 %

* 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
- **Materials to be avoided:**
 - alkali metals
 - acids
 - oxidizing agents
 - > forms heat
- **Dangerous reactions** Contact with acids releases toxic gases
- **Dangerous products of decomposition:** see chapter 5

* 11 Toxicological information

- **Acute toxicity:** Quantitative data on the toxicity of the preparation are not available.

· LD/LC50 values that are relevant for classification:		
54-21-7 sodium salicylate		
Oral	LD50	930 mg/kg (rat)
	LDLo	700 mg/kg (human)
6106-24-7 di-sodium tartrate dihydrate		
Oral	LD50	1290 mg/kg (rat)
13755-38-9 sodium nitroprusside dihydrate		
Oral	LD50	99 mg/kg (rat)
	LDLo	20 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritant effect.
- **Sensitization:** No sensitizing effect known.
- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:

Harmful
Irritant

The following complies to cyanogen compounds / nitriles in general:
Utmost caution! Release of hydrocyanic acid is possible - blockade of cellular respiration.
The following applies to soluble iron compounds: nausea and vomiting after swallowing. The absorption of large quantities is followed by cardiovascular disorders. Toxic effect on liver and kidneys.

— GB —
(Contd. on page 5)

Material Safety Data Sheet

According to 91/155 EEC

Printing date 26.01.2006

Reviewed on 26.01.2006

Product name: Ammonia Salicylate F5 ml

(Contd. of page 4)

* 12 Ecological information:

- **Information about elimination (persistence and degradability):**
- **Other information:** Quantitative data on the ecological effect of this product are not available.

· Behaviour in environmental systems:	
54-21-7 sodium salicylate	
log P(o/w)	-1.43 (.)

· Ecotoxicological effects:	
· Aquatic toxicity:	
54-21-7 sodium salicylate	
Daphnia EC50	230 mg/l/24h (Daphnia magna)
LC50	90 mg/l/48h (Leuciscus idus)
13755-38-9 sodium nitroprusside dihydrate	
Daphnia EC50	1.0 mg/l/24h (Daphnia magna)
LC50	0.08 mg/l (fish)

- **Remark:**

Toxic for fish:

CAS 13755-38-9 (Fe): > 0,9 mg/l / pH 6,5-7,5

MERCK: the following applies to dissolved iron compounds in general:

fish: toxic as from 0.9 mg/l at pH 6.5 - 7.5

lethal as from 1 mg/l at pH 5.5 - 6.7

- **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment acc. VwVwS Annex 4): hazardous for water.

Do not allow product to reach ground water, water bodies or sewage system.

* 13 Disposal considerations

- **Product:**

- **Recommendation** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue	
16 05 06	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

* 14 Transport information

· Land transport ADR/RID (cross-border)	
· ADR/RID-GGVS/E Class: -	
· Maritime transport IMDG:	
· IMDG Class: -	
· Marine pollutant:	No
· Air transport ICAO-TI and IATA-DGR:	
· ICAO/IATA Class: -	

- **Transport/Additional information:** Not dangerous according to the above specifications.

— GB —
(Contd. on page 6)

Material Safety Data Sheet

According to 91/155 EEC

Printing date 26.01.2006

Reviewed on 26.01.2006

Product name: Ammonia Salicylate F5 ml

(Contd. of page 5)

* 15 Regulatory information

· Designation according to EC guidelines:

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

· Code letter and hazard designation of product:

Xn Harmful

· Hazard-determining components of labelling:

sodium salicylate

· Risk phrases:

22 Harmful if swallowed.

36 Irritating to eyes.

· Safety phrases:

22 Do not breathe dust.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36 Wear suitable protective clothing.

60 This material and its container must be disposed of as hazardous waste.

· National regulations**· Information about limitation of use:**

Employment restrictions concerning young persons must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

* 16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant R-phrases

22 Harmful if swallowed.

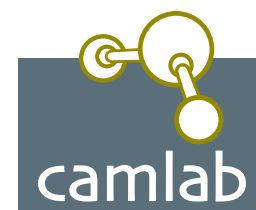
25 Toxic if swallowed.

36 Irritating to eyes.

· Department issuing data specification sheet: Technical Department**· * Data compared to the previous version altered.**

Material Safety Data Sheet

According to 91/155 EEC



Printing date 15.03.2005

Reviewed on 15.03.2005

* 1 Identification of substance:

- **Product details:** Reagent for water analysis
- **Product name:** Am Diluent Reagent HR
- **Catalogue number:** CW/53.11.40
- **Supplier:**
Camlab Limited
Camlab House, Norman Way, Over, Cambridge CB4 5WE
United Kingdom
Tel: +44 (0)1954 233100
- **Informing department:** Technical Support
- **Emergency information:**
National Poisons Information Service, United kingdom
Tel: 0870 600 6266 (24 hours) • <http://www.npis.org/>

* 2 Composition/Data on components:

- **Chemical characterization:** aqueous solution
- **CAS No. Designation:**
7732-18-5 water, distilled, conductivity or of similar purity
- **Identification number(s):**
- **EINECS Number:** 231-791-2

3 Hazards identification

- **Hazard designation:** void
- **Information pertaining to particular dangers for man and environment** void

* 4 First aid measures

- **General information** No special measures required.
- **After inhalation** Supply fresh air.
- **After skin contact** The product is not skin irritating.
- **After eye contact**
Rinse opened eye for several minutes under running water.
Seek medical treatment.
- **After swallowing** In case of persistent symptoms consult doctor.

* 5 Fire fighting measures

- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information**
Ambient fire may liberate hazardous vapours.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

(Contd. on page 2)

GB

Material Safety Data Sheet

According to 91/155 EEC

Printing date 15.03.2005

Reviewed on 15.03.2005

Product name: Am Diluent Reagent HR

(Contd. of page 1)

 Collect contaminated fire fighting water separately. It must not enter drains.

* 6 Accidental release measures

- **Person-related safety precautions:** Ensure adequate ventilation
- **Measures for environmental protection:**
Dilute with much water.
Do not allow product to reach sewage system or water bodies.
- **Measures for cleaning/collecting:** Absorb with liquid-binding material (sand, diatomite, universal binders).
- **Additional information:** No dangerous materials are released.

* 7 Handling and storage

- **Handling**
- **Information for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** The product is not flammable
- **Storage**
- **Requirements to be met by storerooms and containers:** Store in cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Store under dry conditions.
Protect from humidity and keep away from water.
Protect from the effects of light.
- **Storage class** Not required.

* 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the compilation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**
The usual precautionary measures should be adhered to general rules for handling chemicals.
- **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
- **Protection of hands:** Preventive skin protection by use of skin-protecting agents is recommended.
- **Material of gloves**
nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.11 mm
- **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.
Value for the permeation: Level ≥ 6 (480 min)
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing.

9 Physical and chemical properties:

- | | |
|---------------------------------------|------------|
| · Form: | Fluid |
| · Colour: | Colourless |
| · Odour: | Odourless |
| · Melting point/Melting range: | 0°C |
| · Boiling point/Boiling range: | 100°C |

(Contd. on page 3)

Material Safety Data Sheet

According to 91/155 EEC

Printing date 15.03.2005

Reviewed on 15.03.2005

Product name: Am Diluent Reagent HR

(Contd. of page 2)

· Flash point:	Not applicable
· Danger of explosion:	Product is not explosive.
· Vapour pressure at 20°C:	23 hPa
· Density at 20°C	1 g/cm ³
· Solubility in / Miscibility with Water:	Fully miscible
· pH-value at 20°C:	10.2
· Organic solvents:	0.0 %
· Water:	< 100 %
· Solids content:	< 1 %

* 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** see chapter 5

* 11 Toxicological information

- **Acute toxicity:** Quantitative data on the toxicity of the preparation are not available.
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritant effect.
- **Sensitization:** No sensitizing effect known.
- **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
The material is not subject to classification according to EC lists in the last version.
The usual precautionary measures should be adhered to general rules for handling chemicals.

* 12 Ecological information:

- **Information about elimination (persistence and degradability):**
- **Other information:** Quantitative data on the ecological effect of this product are not available.
- **General notes:**
Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms.
Generally not hazardous for water.

* 13 Disposal considerations

- **Product:**
- **Recommendation** Disposal must be made according to official regulations.

· European waste catalogue
16 05 09 discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

(Contd. on page 4)

Material Safety Data Sheet

According to 91/155 EEC

Printing date 15.03.2005

Reviewed on 15.03.2005

Product name: Am Diluent Reagent HR

(Contd. of page 3)

· Recommended cleaning agent: Water, if necessary with cleaning agent.

14 Transport information

· Land transport ADR/RID (cross-border)
· ADR/RID-GGVS/E Class: -**· Maritime transport IMDG:**
· IMDG Class: -
· Marine pollutant: No**· Air transport ICAO-TI and IATA-DGR:**
· ICAO/IATA Class: -**· Transport/Additional information:** Not dangerous according to the above specifications.

*15 Regulatory information

· Designation according to EC guidelines:

Observe the normal safety regulations when handling chemicals

The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (GefStoffV).

· National regulations**· Water hazard class:** Generally not hazardous for water.

16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing data specification sheet: Technical Department**· * Data compared to the previous version altered.**
