Safety Data Sheet

according to regulation (EC) No 1907/2006

Product name:NHSVersion:1.0Revision date:12.04.2021



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

1.1 Product identifiers

Product Name:	NHS
Product Number:	not sold separately
Part of Kits:	2-4380-000

Registration Number:

A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

1.2 Relevant identified uses of the substance or mixture

laboratory chemical

and uses advised against:

No relevant information available.

1.3 Details of the supplier of the safety data sheet

Supplier:	IBA GmbH Rudolf-Wissell-Str. 28 37079 Göttingen Germany
Telephone:	+49-551-50672- 0
E-mail:	info@iba-lifesciences.com

1.4 Emergency Telephone Number

Emergency Phone: +49 (0)551/19240 (Poison Information Center Göttingen)

2 Hazards Identification

2.1 Classification of the substance or mixture	
Classification according to Regulation (EC) No 1272/2008 [CLP]	not hazardous
2.2 Label elements	

Labeling according to Regulation (EC) No 1272/2008 [CLP] n/a

2.3 Other hazards

All chemicals are potentially dangerous. They should only be handled by specially trained personnel.



3 Composition/Information on ingredients

3.1 Chemical characterization: Substances

Name:	NHS
Synonyms:	HOSu
	1-Hydroxy-2,5-pyrrolidinedione
Molecular formula:	$C_4H_5NO_3$
Molar mass:	115.09 g/mol
CAS-No.:	6066-82-6
EC-No.:	228-001-3

4 First aid measures

4.1 Description of first aid measures

After inhalation:	Provide fresh air. If feeling unwell, consult a physician.
 After skin contact:	Wash with plenty of soap and water. If skin irritation occurs, consult a physician.
After eye contact:	Flush eyes with water for at least 10 minutes. If irritation persists, consult a physician.
After ingestion:	Rinse mouth and drink water if conscious. If feeling unwell, consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Irritations

4.3 Indications of any immediate medical attention and special treatment needed

No relevant information available.

5 Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

CO₂, dry extinguishing powder, foam, or water spray.

Unsuitable extinguishing media

No relevant information available.

5.2 Special hazards arising from the substance of mixture

In case of fire may be liberated: Nitrogen oxides, Carbon oxides

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary (see section 5.2).

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear suitable protective equipment. Avoid eye and skin contact.

6.2 Environmental precautions

Do not let product enter drains.



6.3 Methods and material for containment and cleaning up

Take up mechanically. Place in appropriate containers for disposal. Provide suitable ventilation.

6.4 Reference to other sections

Information about safe handling: see section 7. Information about protective equipment: see section 8. Information for disposal: see section 13.

7 Handling and storage

7.1 Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed. Keep containers, equipment, and workplace clean.

7.2 Conditions for safe storage, including any incompatibilities

Storage rooms and containers:	No special requirements.
Incompatible substances or mixtures:	Keep away from food and drink.
Consideration of other advice:	Keep containers tightly closed.
Recommended storage temperature:	2 – 8 °C

7.3 Specific end use(s)

No relevant information available.

8 Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters: none

8.2 Exposure controls

General precautionary and hygiene measures

The usual precautions for handling chemicals should be observed. Avoid contact with eyes and skin.

Wash hands before breaks and after work.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Inspect gloves prior to each use. Choose suitable gloves according to break through time, permeation rate and material degradation.

Glove material

Nitrile rubber, minimum layer thickness: \geq 0,11 mm The suitability of gloves depends on several quality characteristic besides the material. It may differ from one supplier to another.

Break through time

Break through level: Level \geq 6 The exact break through time should be inquired from the supplier and should be observed.



Eye protection

Use safety goggles with side protection.

Body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	white powder
Odor:	odorless
Odor threshold:	no data available
pH:	no data available
Melting point:	no data available
Freezing point:	no data available
Initial boiling point and boiling range:	no data available
Flash point:	no data available
Evaporation rate:	no data available
Upper/lower explosive limits:	no data available
Vapor pressure:	no data available
Vapor density:	no data available
Relative density:	no data available
Water solubility:	no data available
Partition coefficient (n-octanol/water):	no data available
Viscosity:	no data available
Explosive properties:	no data available
Oxidizing properties:	no data available

9.2 Other safety information

No further relevant information available.

10 Stability and reactivity

10.1 Reactivity

See section 10.3

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Reactions with alkaline and oxidizing substances.

10.4 Conditions to avoid

Heating (causes degradation).

10.5 Incompatible materials

No relevant information available.



10.6 Hazardous decomposition products

No relevant information available.

11 Toxicological information

11.1 Information on toxicological effects Acute toxicity

No relevant information available.

Skin corrosion/irritation

No relevant information available.

Serious eye damage/eye irritation

No relevant information available.

Respiratory or skin sensitization.

No relevant information available.

Germ cell mutagenicity

No relevant information available.

Carcinogenicity

No relevant information available.

Reproductive toxicity

No relevant information available.

Specific target organ toxicity – single exposure

No relevant information available.

Specific target organ toxicity – repeated exposure

No relevant information available.

Aspiration hazard

No relevant information available.

12 Ecological information

12.1 Toxicity

No relevant information available.

12.2 Persistence and degradability

No relevant information available.

12.3 Bioaccumulative potential

No relevant information available.

12.4 Mobility in soil

No relevant information available.

12.5 Results of PBT- and vPvB-assessment

No relevant information available.



Other adverse effects 12.6

NHS

Version:

No relevant information available.

13 Disposal considerations

13.1 Waste treatment methods

Recommendation for product:

The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.

Contaminated packaging:

Dispose of as unused product.

14 Transport information

14.1 **UN-Number**

ADR/RID: -	IMDG: -	IATA: -
14.2 UN proper shipping na ADR/RID: not dangerous goods		IATA: not dangerous goods
14.3 Transport hazard class(es)		
ADR/RID: -	IMDG: -	IATA: -
14.4 Packaging group		
ADR/RID: -	IMDG: -	IATA: -
14.5 Environmental hazards		
ADR/RID: no	IMDG: marine pollutant: no	IATA: no

14.6 Special precaution for user

No relevant information available.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC code

No relevant information available.

15 Regulatory Information

15.1 Safety, health and environmental regulation specific for the substance or mixture

National regulations:

No relevant information available.

Chemical Safety Assessment 15.2

No Chemical Safety Assessment has been carried out for this substance / mixture.

16 Other information

The above information is based on our present-day knowledge. It does not represent any guarantee of the properties of the product, not guarantee specific properties of the product and shall not establish a legally valid contractual relationship.