

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Hoesch Hydrazinhydrat 15%

Revision date: 13.05.2025

Product code: 33466

Page 1 of 12

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

#### 1.1. Product identifier

Hoesch Hydrazinhydrat 15%

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

##### Use of the substance/mixture

Reagents and laboratory chemicals  
Only for laboratory and analysis purposes.

##### Uses advised against

Do not use for private purposes (household).

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

##### Further Information

No data available

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Regulation (EC) No 1272/2008

Carc. 1B; H350  
Acute Tox. 3; H331  
Acute Tox. 3; H311  
Acute Tox. 4; H302  
Skin Corr. 1B; H314  
Eye Dam. 1; H318  
Skin Sens. 1; H317  
Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

#### 2.2. Label elements

##### Regulation (EC) No 1272/2008

##### Hazard components for labelling

hydrazine

##### Signal word:

Danger

##### Pictograms:



##### Hazard statements

H311+H331	Toxic in contact with skin or if inhaled.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H350	May cause cancer.
H411	Toxic to aquatic life with long lasting effects.

##### Precautionary statements

P201	Obtain special instructions before use.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Hoesch Hydrazinhydrat 15%

Revision date: 13.05.2025

Product code: 33466

Page 2 of 12

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
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.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

### Special labelling of certain mixtures

Restricted to professional users.

### 2.3. Other hazards

No data available

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Chemical characterization

Mixtures in aqueous solution

#### Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
302-01-2	hydrazine			15 - < 20 %
	206-114-9	007-008-00-3	01-2119492624-31	
	Flam. Liq. 3, Carc. 1B, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, Skin Corr. 1B, Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 1; H226 H350 H331 H311 H301 H314 H317 H400 H410			

Full text of H and EUH statements: see section 16.

#### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
302-01-2	206-114-9	hydrazine	15 - < 20 %
		inhalation: LC50 = 570 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: ATE = 300 mg/kg; oral: LD50 = ca. 262 mg/kg Skin Corr. 1B; H314: >= 10 - 100 Skin Irrit. 2; H315: >= 3 - < 10 Eye Irrit. 2; H319: >= 3 - < 10	

#### Further Information

No data available

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

First aider: Pay attention to self-protection!

#### After inhalation

Provide fresh air.

If breathing is irregular or stopped, administer artificial respiration.

Call a physician immediately.

#### After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

#### After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Hoesch Hydrazinhydrat 15%

Revision date: 13.05.2025

Product code: 33466

Page 3 of 12

ophthalmologist immediately.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
Protect uninjured eye.

### After ingestion

Provide fresh air.  
Rinse mouth immediately and drink plenty of water.  
Call a physician immediately.  
Observe risk of aspiration if vomiting occurs.

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

Causes burns.  
Irritant  
Cough  
Dyspnoea  
Spasms  
Headache  
May cause an allergic skin reaction.  
Pneumonia  
Causes damage to organs.

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

No data available

## SECTION 5: Firefighting measures

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

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

#### **Unsuitable extinguishing media**

Full water jet

### **5.2. Special hazards arising from the substance or mixture**

Combustible liquids  
Vapours are heavier than air, spread along floors and form explosive mixtures with air.  
Hazardous combustion products  
In case of fire may be liberated:  
Nitrogen oxides (NO<sub>x</sub>)

### **5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.  
Wear full chemical protective clothing.  
In case of fire and/or explosion do not breathe fumes.

### **Additional information**

Use water spray jet to protect personnel and to cool endangered containers.  
Move undamaged containers from immediate hazard area if it can be done safely.  
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## SECTION 6: Accidental release measures

### **6.1. Personal precautions, protective equipment and emergency procedures**

#### **General advice**

Vapours can form explosive mixtures with air.

#### **For non-emergency personnel**

Provide adequate ventilation.  
Use personal protection equipment.  
Avoid contact with skin, eyes and clothes.  
Remove persons to safety.

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Hoesch Hydrazinhydrat 15%

Revision date: 13.05.2025

Product code: 33466

Page 4 of 12

Emergency procedures  
Consult an expert  
Do not breathe dust/fume/gas/mist/vapours/spray.

### For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

### 6.3. Methods and material for containment and cleaning up

#### For containment

Cover drains.  
Prevent spread over a wide area (e.g. by containment or oil barriers).  
Collect in closed and suitable containers for disposal.  
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

#### For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

#### Other information

Provide adequate ventilation.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

### 6.4. Reference to other sections

Safe handling: see section 7  
Personal protection equipment: see section 8  
Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Read label before use.  
Handle and open container with care.  
Use personal protection equipment.  
Avoid contact with skin, eyes and clothes.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Provide adequate ventilation.  
Use extractor hood (laboratory).

#### Advice on protection against fire and explosion

Usual measures for fire prevention.

#### Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.  
Wash hands and face before breaks and after work and take a shower if necessary . When using do not eat or drink. The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

#### Further information on handling

Take off immediately all contaminated clothing and wash it before reuse .  
Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. If handled uncovered, arrangements with local exhaust ventilation have to be used.

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

#### Requirements for storage rooms and vessels

Keep container tightly closed.  
Protect against: Radiant heat.  
Keep locked up.

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Hoesch Hydrazinhydrat 15%

Revision date: 13.05.2025

Product code: 33466

Page 5 of 12

### Hints on joint storage

National regulations

### Further information on storage conditions

Store in a dry place.

Store in a well-ventilated place.

### 7.3. Specific end use(s)

The product is intended for research, analysis and scientific education.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
302-01-2	Hydrazine	0.01	0.013		TWA (8 h)	

#### DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
302-01-2	hydrazine			
Worker DNEL, acute	dermal	systemic	0,0064 mg/kg bw/day	
Worker DNEL, long-term	dermal	systemic	0,0064 mg/kg bw/day	

#### PNEC values

CAS No	Substance	Value
302-01-2	hydrazine	
Freshwater		0,0006 mg/l
Freshwater (intermittent releases)		0 mg/l
Marine water		0,00006 mg/l
Micro-organisms in sewage treatment plants (STP)		0,055 mg/l

#### Additional advice on limit values

Observe in addition any national regulations!

### 8.2. Exposure controls

#### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

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

#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

goggles

Wear eye protection/face protection.

##### Hand protection

Tested protective gloves must be worn

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Hoesch Hydrazinhydrat 15%

Revision date: 13.05.2025

Product code: 33466

Page 6 of 12

### Skin protection

Wear suitable protective clothing.

When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.

Take off immediately all contaminated clothing and wash it before reuse.

### Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

### Thermal hazards

No data available

### Environmental exposure controls

Do not allow to enter into surface water or drains.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	colourless
Odour:	stinging
Odour threshold:	No data available
Melting point/freezing point:	-14 °C
Boiling point or initial boiling point and boiling range:	102-104 °C
Flammability:	No data available
Lower explosion limits:	No data available
Upper explosion limits:	No data available
Flash point:	>100 °C
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH-Value (at 20 °C):	10,7 (10 g/l)
Viscosity / kinematic:	No data available
Solubility in other solvents	
No data available	
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	No data available
Dispersion stability:	No data available
Vapour pressure:	15-20 hPa
(at 20 °C)	
Vapour pressure:	No data available
Density:	1,01-1,02 g/cm³
Relative density:	No data available
Bulk density:	No data available
Relative vapour density:	No data available
Particle characteristics:	No data available

### 9.2. Other information

#### Information with regard to physical hazard classes

Explosive properties

No data available

Sustained combustibility:

No data available

Self-ignition temperature

Solid:

No data available

Gas:

No data available

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Hoesch Hydrazinhydrat 15%

Revision date: 13.05.2025

Product code: 33466

Page 7 of 12

Oxidizing properties

No data available

### Other safety characteristics

Evaporation rate:

No data available

Solvent separation test:

No data available

Solvent content:

No data available

Solid content:

No data available

Sublimation point:

No data available

Softening point:

No data available

Pour point:

No data available

No data available:

Viscosity / dynamic:  
(at 20 °C)

1,04 mPa·s

Flow time:

No data available

### Further Information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

When heated: Vapours can form explosive mixtures with air.

### 10.2. Chemical stability

Protect against: Radiant heat.

### 10.3. Possibility of hazardous reactions

Oxidising agent

Acid

metals

Danger of explosion:

Alkali metals

Mercury oxide

Tin(II) chloride

### 10.4. Conditions to avoid

Radiant heat.

### 10.5. Incompatible materials

Zinc

Oxidising agent

Organic materials

Oxygen

Copper

### 10.6. Hazardous decomposition products

In case of fire may be liberated:

SECTION 5: Firefighting measures

### Further information

No data available

## SECTION 11: Toxicological information

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

#### Toxicocinetics, metabolism and distribution

No data available

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Hoesch Hydrazinhydrat 15%

Revision date: 13.05.2025

Product code: 33466

Page 8 of 12

### Acute toxicity

Toxic if inhaled.  
Toxic in contact with skin.  
Harmful if swallowed.

### ATEmix calculated

ATE (oral) 1747 mg/kg; ATE (dermal) 2000 mg/kg; ATE (inhalation vapour) 20,00 mg/l; ATE (inhalation dust/mist) 3,333 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
302-01-2	hydrazine				
	oral	LD50 ca. 262 mg/kg	Rat	Publication (2003)	OECD Guideline 401
	dermal	ATE 300 mg/kg			
	inhalation (4 h) vapour	LC50 570 mg/l	Rat	AMA Arch. Ind. Health 12, 609-616 (1955)	Method: 5 concentrations tested; 10 anim
	inhalation dust/mist	ATE 0,5 mg/l			

### Irritation and corrosivity

Skin corrosion/irritation: Causes severe skin burns and eye damage.  
Serious eye damage/eye irritation: Causes serious eye damage.

### Sensitising effects

May cause an allergic skin reaction. (hydrazine)

### Carcinogenic/mutagenic/toxic effects for reproduction

May cause cancer. (hydrazine)  
Germ cell mutagenicity: Based on available data, the classification criteria are not met.  
Reproductive toxicity: Based on available data, the classification criteria are not met.

### STOT-single exposure

Based on available data, the classification criteria are not met.

### STOT-repeated exposure

Based on available data, the classification criteria are not met.

### Aspiration hazard

Based on available data, the classification criteria are not met.

### Information on likely routes of exposure

No data available

### Specific effects in experiment on an animal

No data available

### Additional information on tests

No data available

### Practical experience

No data available

## 11.2. Information on other hazards

### Endocrine disrupting properties

No data available

### Other information

No data available

### Further information

No data available



# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Hoesch Hydrazinhydrat 15%

Revision date: 13.05.2025

Product code: 33466

Page 9 of 12

### SECTION 12: Ecological information

#### 12.1. Toxicity

Toxic to aquatic life with long lasting effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
302-01-2	hydrazine					
	Acute fish toxicity	LC50 0,61 mg/l	96 h	Lebistes reticulatus	REACH Registration Dossier	Acute toxicity
	Acute crustacea toxicity	EC50 0,19 mg/l	48 h	Daphnia pulex	REACH Registration Dossier	EPA 600/3-75-009, US Environ Prot Agency
	Crustacea toxicity	NOEC 0,01 mg/l	21 d	Daphnia magna	REACH Registration Dossier	OECD Guideline 211
	Acute bacteria toxicity	EC50 8,6 mg/l ( )	3 h	activated sludge of a predominantly domestic sewage	REACH Registration Dossier	OECD Guideline 209

#### 12.2. Persistence and degradability

No data available

#### 12.3. Bioaccumulative potential

##### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
302-01-2	hydrazine	-0,16

#### 12.4. Mobility in soil

No data available

#### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

#### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### 12.7. Other adverse effects

No data available

#### Further information

Do not allow to enter into surface water or drains.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Disposal recommendations

Send to a physico-chemical treatment facility under observation of official regulations.

Do not allow to enter into surface water or drains.

##### Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Hoesch Hydrazinhydrat 15%

Revision date: 13.05.2025

Product code: 33466

Page 10 of 12

<b>14.1. UN number or ID number:</b>	UN 3293
<b>14.2. UN proper shipping name:</b>	HYDRAZINE, AQUEOUS SOLUTION
<b>14.3. Transport hazard class(es):</b>	6.1
<b>14.4. Packing group:</b>	III
Hazard label:	6.1
Classification code:	T4
Special Provisions:	566
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	2
Hazard No:	60
Tunnel restriction code:	E

### Inland waterways transport (ADN)

<b>14.1. UN number or ID number:</b>	UN 3293
<b>14.2. UN proper shipping name:</b>	Hydrazine, aqueous solution
<b>14.3. Transport hazard class(es):</b>	6.1
<b>14.4. Packing group:</b>	III
Hazard label:	6.1
Classification code:	T4
Special Provisions:	566 802
Limited quantity:	5 L
Excepted quantity:	E1

### Marine transport (IMDG)

<b>14.1. UN number or ID number:</b>	UN 3293
<b>14.2. UN proper shipping name:</b>	HYDRAZINE, AQUEOUS SOLUTION
<b>14.3. Transport hazard class(es):</b>	6.1
<b>14.4. Packing group:</b>	III
Hazard label:	6.1
Special Provisions:	223
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-A, S-A

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

<b>14.1. UN number or ID number:</b>	UN 3293
<b>14.2. UN proper shipping name:</b>	HYDRAZINE, AQUEOUS SOLUTION
<b>14.3. Transport hazard class(es):</b>	6.1
<b>14.4. Packing group:</b>	III
Hazard label:	6.1
Special Provisions:	A3
Limited quantity Passenger:	2 L
Passenger LQ:	Y642
Excepted quantity:	E1
IATA-packing instructions - Passenger:	655
IATA-max. quantity - Passenger:	60 L
IATA-packing instructions - Cargo:	663
IATA-max. quantity - Cargo:	220 L

### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:	Yes
Danger releasing substance:	hydrazine

## SECTION 15: Regulatory information

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

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Hoesch Hydrazinhydrat 15%

Revision date: 13.05.2025

Product code: 33466

Page 11 of 12

### EU regulatory information

Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):  
hydrazine

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 28, Entry 40, Entry 75

Information according to Directive

2012/18/EU (SEVESO III):

33 The following CARCINOGENS or the mixtures containing the following carcinogens at concentrations above 5 % by weight: Hydrazine (302-01-2) H2, E2

Additional information:

### Additional information

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

### National regulatory information

Water hazard class (D): 3 - highly hazardous to water

## SECTION 16: Other information

### Changes

This data sheet contains changes from the previous version in section(s): 1,2,3,4,5,6,7,8,9,10,11,12,13,15,16.

### Abbreviations and acronyms

Flam. Liq: Flammable liquid

Acute Tox: Acute toxicity

Skin Corr: Skin corrosion

Eye Dam: Eye damage

Skin Sens: Skin sensitisation

Carc: Carcinogenicity

Aquatic Acute: Acute aquatic hazard

Aquatic Chronic: Chronic aquatic hazard

### Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Carc. 1B; H350	Calculation method
Acute Tox. 3; H331	
Acute Tox. 3; H311	
Acute Tox. 4; H302	Calculation method
Skin Corr. 1B; H314	Calculation method
Eye Dam. 1; H318	Calculation method
Skin Sens. 1; H317	Calculation method
Aquatic Chronic 2; H411	Calculation method

### Relevant H and EUH statements (number and full text)

H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H311+H331	Toxic in contact with skin or if inhaled.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H350	May cause cancer.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Hoesch Hydrazinhydrat 15%

Revision date: 13.05.2025

Product code: 33466

Page 12 of 12

H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

#### Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*