

Creation Date 08-Aug-2012

Revision Date 09-Feb-2024

Revision Number 11

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

Product Description: **Hydrazine hydrate solution 62%**  
Cat No. : **H/0500/PB08, H/0500/PB17, H/0500/17**  
Molecular Formula **H<sub>4</sub> N<sub>2</sub> . x H<sub>2</sub> O**

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

Recommended Use Laboratory chemicals.  
Uses advised against No Information available

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

#### Company

**UK entity/business name**  
Fisher Scientific UK  
Bishop Meadow Road, Loughborough,  
Leicestershire LE11 5RG, United Kingdom

**EU entity/business name**  
Thermo Fisher Scientific  
Janssen Pharmaceuticaaan 3a  
2440 Geel, Belgium

E-mail address [begele.sdsdesk@thermofisher.com](mailto:begele.sdsdesk@thermofisher.com)

### 1.4. Emergency telephone number

Tel: 01509 231166  
Chemtrec US: (800) 424-9300  
Chemtrec EU: 001-703-527-3887

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

#### CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

##### Physical hazards

Based on available data, the classification criteria are not met

##### Health hazards

Acute oral toxicity

Category 3 (H301)

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Acute dermal toxicity  
Acute Inhalation Toxicity - Vapors  
Skin Corrosion/Irritation  
Serious Eye Damage/Eye Irritation  
Skin Sensitization  
Carcinogenicity

Category 3 (H311)  
Category 2 (H330)  
Category 1 B (H314)  
Category 1 (H318)  
Category 1 (H317)  
Category 1B (H350)

## **Environmental hazards**

Acute aquatic toxicity  
Chronic aquatic toxicity

Category 1 (H400)  
Category 1 (H410)

Full text of Hazard Statements: see section 16

## **2.2. Label elements**



Signal Word

**Danger**

## **Hazard Statements**

H301 + H311 - Toxic if swallowed or in contact with skin  
H314 - Causes severe skin burns and eye damage  
H317 - May cause an allergic skin reaction  
H330 - Fatal if inhaled  
H350 - May cause cancer  
H410 - Very toxic to aquatic life with long lasting effects

## **Precautionary Statements**

P201 - Obtain special instructions before use  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
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 or doctor/physician  
P273 - Avoid release to the environment

## **2.3. Other hazards**

PBT :-

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)

vPvB :-

This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

Toxic to terrestrial vertebrates

This product does not contain any known or suspected endocrine disruptors

## **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

### **3.2. Mixtures**

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Component	CAS No	EC No	Weight %	CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567
Hydrazine hydrate	10217-52-4	206-114-9	58 - 64	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 2 (H330) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Carc. 1B (H350) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Hydrazine	302-01-2	EEC No. 206-114-9	-	Flam. Liq. 3 (H226) Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 2 (H330) Skin Corr. 1B (H314) Skin Sens. 1 (H317) Eye Dam. 1 (H318) Carc. 1B (H350) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Water	7732-18-5	231-791-2	36 - 62	-

Component	Specific concentration limits (SCL's)	M-Factor	Component notes
Hydrazine hydrate	Skin Corr. 1B :: C>=10% Skin Irrit. 2 :: 3%<=C<10% Eye Irrit. 2 :: 3%<=C<10%	-	-
Hydrazine	Eye Irrit. 2 (H319) :: 3%<=C<10% Skin Corr. 1B (H314) :: C>=10% Skin Irrit. 2 (H315) :: 3%<=C<10%	10	-

Components	Reach Registration Number	
Hydrazine	01-2119492624-31	(for the anhydrous form)

Full text of Hazard Statements: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

<b>Eye Contact</b>	Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.
<b>Ingestion</b>	Call a physician immediately. Clean mouth with water.
<b>Inhalation</b>	Remove from exposure, lie down. Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Immediate medical attention is required.
<b>Self-Protection of the First Aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

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

Causes burns by all exposure routes. May cause allergic skin reaction. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness,

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lightheadedness, chest pain, muscle pain or flushing

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

Notes to Physician

Treat symptomatically.

## **SECTION 5: FIREFIGHTING MEASURES**

### **5.1. Extinguishing media**

#### **Suitable Extinguishing Media**

Water spray. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Chemical foam.

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

No information available.

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

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

#### **Hazardous Combustion Products**

Nitrogen oxides (NO<sub>x</sub>), Ammonia, Hydrogen.

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

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

Ensure adequate ventilation. Avoid contact with skin, eyes and inhalation of vapors. Remove all sources of ignition. Wear protective gloves/clothing and eye/face protection. In case of inadequate ventilation wear respiratory protection.

### **6.2. Environmental precautions**

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional Ecological Information. Avoid release to the environment. Collect spillage.

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

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Do not flush into surface water or sanitary sewer system.

### **6.4. Reference to other sections**

Refer to protective measures listed in Sections 8 and 13.

## **SECTION 7: HANDLING AND STORAGE**

### **7.1. Precautions for safe handling**

Handle product only in closed system or provide appropriate exhaust ventilation. Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Wear personal protective equipment/face protection.

#### **Hygiene Measures**

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Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

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

Keep away from oxidizing agents. Keep away from heat, sparks and flame. Protect from light. Protect from sunlight. Store under an inert atmosphere. Keep containers tightly closed in a dry, cool and well-ventilated place.

Technical Rules for Hazardous Substances (TRGS) 510      Class 6.1A  
Storage Class (LGK) (Germany)

## 7.3. Specific end use(s)

Use in laboratories

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure limits

List source(s): EU - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC

Component	The United Kingdom	European Union	Ireland
Hydrazine	STEL: 0.03 ppm 15 min STEL: 0.039 mg/m <sup>3</sup> 15 min TWA: 0.01 ppm 8 hr TWA: 0.013 mg/m <sup>3</sup> 8 hr Carc. Skin	TWA: 0.013 mg/m <sup>3</sup> (8h) TWA: 0.01 ppm (8h) Skin	TWA: 0.01 ppm 8 hr. TWA: 0.013 mg/m <sup>3</sup> 8 hr. STEL: 0.03 ppm 15 min STEL: 0.039 mg/m <sup>3</sup> 15 min Skin

#### Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

#### Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

#### Predicted No Effect Concentration (PNEC)

See values below.

### 8.2. Exposure controls

#### Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

#### Personal protective equipment

##### Eye Protection

Goggles (European standard - EN 166)

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## Hand Protection

Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Nitrile rubber	> 480 minutes	0.1 - 0.2 mm	Level 6	As tested under EN374-3 Determination of Resistance to Permeation by Chemicals
Neoprene	> 480 minutes	0.38 mm	EN 374	
Neoprene gloves	> 480 minutes	0.45 mm		
Viton (R)	> 480 minutes	0.30 mm		

## Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

## Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.  
To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

## Large scale/emergency use

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced  
**Recommended Filter type:** Organic gases and vapours filter Type K

## Small scale/Laboratory use

Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.  
**Recommended half mask:-** Half mask: EN140; Type K  
When RPE is used a face piece Fit Test should be conducted

## Environmental exposure controls

Prevent product from entering drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Physical State	Liquid	
Appearance	Colorless	
Odor	Ammonia-like	
Odor Threshold	No data available	
Melting Point/Range	-65 °C / -85 °F	
Softening Point	No data available	
Boiling Point/Range	109.4 °C / 228.9 °F	
Flammability (liquid)	No data available	On basis of test data
Flammability (solid,gas)	Not applicable	Liquid
Explosion Limits	<b>Lower</b> 9.3 <b>Upper</b> 83.4	
Flash Point	73 - 91 °C / 163.4 - 195.8 °F	<b>Method -</b> Open cup
Autoignition Temperature	310 °C / 590 °F	
Decomposition Temperature	> 250°C	
pH	10.6-10.7	(1%)
Viscosity	1.26 mPa.s at 20 °C	
Water Solubility	Miscible	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Component	<b>log Pow</b>	
Hydrazine	-0.16	
Vapor Pressure	15 mbar @ 20 °C	
Density / Specific Gravity	1.023	
Bulk Density	Not applicable	Liquid

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Vapor Density 1.1 @ 15 °C (Air = 1.0)  
Particle characteristics Not applicable (liquid)

## 9.2. Other information

Molecular Formula  $\text{H}_4\text{N}_2 \cdot x\text{H}_2\text{O}$   
Molecular Weight 32.04  
Explosive Properties Not explosive

## SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity No

10.2. Chemical stability Do not allow evaporation to dryness. Air sensitive.

### 10.3. Possibility of hazardous reactions

Hazardous Polymerization Hazardous polymerization does not occur.  
Hazardous Reactions No information available.

10.4. Conditions to avoid Exposure to air. Incompatible products.

10.5. Incompatible materials Acids. Bases. Finely powdered metals. Halogens. nitrogen oxides (NOx). Organic materials. Peroxides. Lead. Metals. copper. Butyl rubber.

10.6. Hazardous decomposition products Nitrogen oxides (NOx). Ammonia. Hydrogen.

## SECTION 11: TOXICOLOGICAL INFORMATION

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

#### Product Information

(a) acute toxicity;  
Oral Category 3  
ATE = 244.1 mg/kg  
Dermal Category 3  
ATE = 588.2 mg/kg  
Inhalation Category 2  
ATE = 1.21 mg/l (vapours)

#### Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydrazine hydrate	LD50 = 108 mg/kg bw (Rat) OECD TG 401	-	-
Hydrazine	LD50 = 60 mg/kg ( Rat )	LD50 = 91 mg/kg ( Rabbit )	570 ppm ( Rat ) 4 h 0.75 mg/L ( Rat ) 4 h
Water	-	-	-

(b) skin corrosion/irritation; Category 1 B

(c) serious eye damage/irritation; Category 1

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**(d) respiratory or skin sensitization;**

Respiratory  
Skin

No data available  
Category 1

May cause sensitization by skin contact

**(e) germ cell mutagenicity;**

Based on available data, the classification criteria are not met

**(f) carcinogenicity;**

Category 1B

Possible cancer hazard. May cause cancer based on animal data

Component	EU	UK	Germany	IARC
Hydrazine	Carc Cat. 1B		Cat. 2	Group 2A

**(g) reproductive toxicity;**

Based on available data, the classification criteria are not met

**(h) STOT-single exposure;**

Based on available data, the classification criteria are not met

**(i) STOT-repeated exposure;**

Based on available data, the classification criteria are not met

Test species / Duration  
Study result

Rat  
LOAEL = 0.066 mg/m<sup>3</sup>  
NOAEL = 1.92 mg/kg  
None known.

Target Organs

**(j) aspiration hazard;**

No data available

**Symptoms / effects, both acute and delayed**

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

**11.2. Information on other hazards**

**Endocrine Disrupting Properties**

Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: ECOLOGICAL INFORMATION

**12.1. Toxicity**

**Ecotoxicity effects**

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Component	Freshwater Fish	Water Flea	Freshwater Algae
Hydrazine	LC50: 0.28 - 1.34 mg/L, 96h static (Poecilia reticulata) LC50: 1.81 - 2.79 mg/L, 96h flow-through (Pimephales promelas) LC50: = 1.17 mg/L, 96h (Lepomis macrochirus) LC50: 0.54 - 1.31 mg/L, 96h static (Lepomis macrochirus) LC50: 0.7 - 1.3 mg/L, 96h flow-through (Lepomis macrochirus)		EC50: = 0.006 mg/L, 72h static (Pseudokirchneriella subcapitata) EC50: = 0.071 mg/L, 72h (Pseudokirchneriella subcapitata) EC50: = 0.02 mg/L, 96h static (Pseudokirchneriella subcapitata)



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Component	Microtox	M-Factor
Hydrazine	EC50 = 0.01 mg/L 15 min EC50 = 0.01 mg/L 20 min EC50 = 0.02 mg/L 5 min	10

## 12.2. Persistence and degradability

### Persistence

### Degradation in sewage treatment plant

Miscible with water, Persistence is unlikely, based on information available.  
Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

## 12.3. Bioaccumulative potential

Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Hydrazine	-0.16	No data available

## 12.4. Mobility in soil

The product is water soluble, and may spread in water systems Will likely be mobile in the environment due to its water solubility. Highly mobile in soils

## 12.5. Results of PBT and vPvB assessment

PBT :- This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).  
vPvB :- This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

## 12.6. Endocrine disrupting properties

### Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

## 12.7. Other adverse effects

### Persistent Organic Pollutant

### Ozone Depletion Potential

This product does not contain any known or suspected substance  
This product does not contain any known or suspected substance

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

#### Waste from Residues/Unused Products

Should not be released into the environment. Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

#### Contaminated Packaging

Dispose of this container to hazardous or special waste collection point.

#### European Waste Catalogue (EWC)

According to the European Waste Catalog, Waste Codes are not product specific, but application specific.

#### Other Information

Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Large amounts will affect pH and harm aquatic organisms. Solutions with high pH-value must be neutralized before discharge. Do not let this chemical enter the environment.

## SECTION 14: TRANSPORT INFORMATION

### IMDG/IMO

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<b>14.1. UN number</b>	UN2030
<b>14.2. UN proper shipping name</b>	HYDRAZINE, AQUEOUS SOLUTION
<b>14.3. Transport hazard class(es)</b>	8
<b>Subsidiary Hazard Class</b>	6.1
<b>14.4. Packing group</b>	II

## ADR

<b>14.1. UN number</b>	UN2030
<b>14.2. UN proper shipping name</b>	HYDRAZINE AQUEOUS SOLUTION
<b>14.3. Transport hazard class(es)</b>	8
<b>Subsidiary Hazard Class</b>	6.1
<b>14.4. Packing group</b>	II

## IATA

<b>14.1. UN number</b>	UN2030
<b>14.2. UN proper shipping name</b>	HYDRAZINE, AQUEOUS SOLUTION
<b>14.3. Transport hazard class(es)</b>	8
<b>Subsidiary Hazard Class</b>	6.1
<b>14.4. Packing group</b>	II

<b>14.5. Environmental hazards</b>	Dangerous for the environment Product is a marine pollutant according to the criteria set by IMDG/IMO
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<b>14.6. Special precautions for user</b>	No special precautions required.
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<b>14.7. Maritime transport in bulk according to IMO instruments</b>	Not applicable, packaged goods
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## SECTION 15: REGULATORY INFORMATION

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

#### International Inventories

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
Hydrazine hydrate	10217-52-4	-	-	-	X	X	-	X	X
Hydrazine	302-01-2	206-114-9	-	-	X	X	KE-19981	X	X
Water	7732-18-5	231-791-2	-	-	X	X	KE-35400	X	-

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Hydrazine hydrate	10217-52-4	-	-	-	-	-	X	-
Hydrazine	302-01-2	X	ACTIVE	X	-	X	X	X
Water	7732-18-5	X	ACTIVE	X	-	X	X	X

Legend: X - Listed '-' - Not Listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

### Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Hydrazine hydrate	10217-52-4	-	-	-
Hydrazine	302-01-2	-	Use restricted. See item 28.	SVHC Candidate list - 206-114-9 - Carcinogenic,

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			(see link for restriction details) Use restricted. See item 75. (see link for restriction details)	Article 57a
Water	7732-18-5	-	-	-

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

## REACH links

<https://echa.europa.eu/authorisation-list>

<https://echa.europa.eu/substances-restricted-under-reach>

<https://echa.europa.eu/candidate-list-table>

## Seveso III Directive (2012/18/EC)

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
Hydrazine hydrate	10217-52-4	Not applicable	Not applicable
Hydrazine	302-01-2	0.5 tonne	2 tonne
Water	7732-18-5	Not applicable	Not applicable

## Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

## Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

Take note of Dir 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations

## National Regulations

**UK** - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

## WGK Classification

Water endangering class = 3 (self classification)

Component	Germany - Water Classification (AwSV)	Germany - TA-Luft Class
Hydrazine	WGK3	Krebserzeugende Stoffe - Class I : 0.05 mg/m <sup>3</sup> (Massenkonzentration)

## 15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has been conducted by the manufacturer/importer

## SECTION 16: OTHER INFORMATION

## Full text of H-Statements referred to under sections 2 and 3

H301 - Toxic if swallowed

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H311 - Toxic in contact with skin  
H314 - Causes severe skin burns and eye damage  
H317 - May cause an allergic skin reaction  
H331 - Toxic if inhaled  
H350 - May cause cancer  
H410 - Very toxic to aquatic life with long lasting effects  
H318 - Causes serious eye damage  
H330 - Fatal if inhaled  
H400 - Very toxic to aquatic life

## Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**NOEC** - No Observed Effect Concentration

**PBT** - Persistent, Bioaccumulative, Toxic

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer  
Predicted No Effect Concentration (PNEC)

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

**Key literature references and sources for data**

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (Volatile Organic Compound)

**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:**

**Physical hazards** On basis of test data

**Health Hazards** Calculation method

**Environmental hazards** Calculation method

## Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Chemical incident response training.

**Creation Date** 08-Aug-2012

**Revision Date** 09-Feb-2024

**Revision Summary** SDS sections updated, 1, 3.

**This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended.**

## Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other

# **SAFETY DATA SHEET**

Hydrazine hydrate solution 62%

Revision Date 09-Feb-2024

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materials or in any process, unless specified in the text

**End of Safety Data Sheet**