

Safety Data Sheet – July 2016

According to Regulation EC No 1907/2006 - REACH and Regulation EC No 1272/2008 - CLP

S1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1. Product identifier

Commercial name	Rubator H7
Chemical name	Hexamethylenetetramine
CAS N°	100-97-0
EC (EINECS) N°	202-905-8
Annex VI (EC) 1272/2008 N°	612-101-00-2
REACH register number	NP (Pre-reg. 05-2114511089-53-0000)

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

Application	Vulcanization accelerator for the rubber industry.
Type of use	Industrial
Sectors of use	SU3: Industrial use Use of substances as such or in mixtures in industrial sites; SU10: Formulation (mixture) of mixtures and/or re-bottling (without including alloys); SU11: Manufacture of rubber products.
Product category	PC32: Polymer preparation and compounds: Production of tyres and general rubber goods.

1.3. Details of the supplier of the safety data sheet

Company	GENERAL QUÍMICA, S.A.U.
Address	Ctra. Miranda de Ebro-Puentelarrá, km. 4. 01213 Lantarón (Álava); ESPAÑA
Phone	(+34) 945 332 145
Fax	(+34) 945 332 888
e-mail address	SDSgequisa@repsol.com
Date	July 2016
Modification date	-
Revision number	-

1.4. Emergency telephone number

Emergency telephone number 24h Santander (Spain)	(+34) 911 142 520
Emergency telephone number 24h Altamira (Mexico)	(+44) (0) 1235 239 670

S2 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification as per Regulation (EC) n.1272/2008

- Flammable solid cat. 2
- Skin sensitizer cat. 1

Classification as per Dir 67/548/EEC

- F: Flammable; R11
- Xi: Irritating; R43

2.2. Label elements

Pictograms



Signal word

- Attention/Warning

Hazardous statements

- H228: Flammable solid
- H317: May cause an allergic skin reaction

Precautionary statements

- P210: Keep away from heat sources, sparks and naked flames or hot surfaces. Do not smoke.
- P240: Ground/bond container and receiving equipment
- P241: Use explosion-proof electrical/ventilating/lighting/equipment
- P280: Wear protective gloves / clothing / eye / face protection.

2.3. Other hazards

The substance does not meet the criteria to be considered PBT or vPvB.

S3 COMPOSITION/INFORMATION ON INGREDIENTS

Hexamethylenetetramine (methenamine)

Classification Reg. (CE) 1272/2008	Concentration (%)
<ul style="list-style-type: none">• Flammable solid cat. 2; H228• Skin sensitizer cat. 1; H317	>96 % p/p

Precipitated silicon dioxide

Classification Reg. (CE) 1272/2008	No. CAS	No. CE	Concentration (%)
Not classified	7631-86-9	231-545-4	< 4% p/p

S4 FIRST AID MEASURES

4.1. – 4.2 Description of the first aid measures and most important symptoms and effects, both acute and delayed

Inhalation

- Remove affected person to fresh air. If the affected person does not breathe, apply artificial respiration.
- If breathing is difficult, administer oxygen and provide immediate medical care.

Ingestion/aspiration

- Seek immediate medical attention. Do not induce vomiting unless told to do so by a poison control centre or doctor. Drink and wash your mouth repeatedly with plenty of water.

Contact with the skin

- Remove contaminated clothing and thoroughly wash the affected parts of the body with soap and water during at least 15 minutes.
- Wash contaminated clothing thoroughly before reuse. Seek medical care.

Contact with the eyes

- Flush immediately with plenty of water for at least 15 min. holding the eyelids open.
- Seek medical attention if irritation persists after washing.
- If worn, remove contact lenses immediately, unless they have adhered to eyes.

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

In case of lung irritation, immediately apply medical care with dexamethasone spray.

S5 FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

- Water spray, alcohol-resistant foam.

Unsuitable extinguishing media

- Avoid using water jets as much as possible.

5.2. Special hazards arising from the substance or mixture

If the product burns, it emits toxic gases (carbon dioxide monoxide, nitrogen oxides, hydrogen cyanide, ammonia and formaldehyde vapours). Avoid discharge into drains or watercourses.

5.3. Advice for firefighters

- Attack the fire from a safe distance and protected area. Use water spray to cool surfaces exposed to the fire. Avoid the presence of airborne dust because it is combustible.
- Fire-fighting personnel must wear approved protective clothing for firefighting and self-contained breathing apparatus.

S6 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

- Avoid direct contact with the product and keep non-essential personnel away.
- Ventilate closed spaces before entering.
- Remove any friction, impact, heat and low-intensity electricity sources from the area. Do not smoke.

Personal protection

- Use of safety goggles, gloves and protective clothing of a suitable material.
- In case of dust, use breathing protection mask with filter.

6.2. Environmental precautions

Avoid discharge to sewers and public waterways. The product may cause long-term adverse effects to the aquatic environment.

6.3. Methods and material for containment and cleaning up

Always use anti-spark tools. Solid spillages are collected with shovels or other means and placed into sealed plastic bags or drums for later recycling or managed as waste.

6.4. Reference to other sections

No additional reference.

S7 HANDLING AND STORAGE

7.1. Precautions for safe handling

General precautions

- Do not smoke, eat or drink while handling the product.
- Use appropriate protective equipment to avoid direct contact or inhalation of the product and avoid generating dust.
- Eliminate all the possible ignition sources from the area where the material is handled; sparks, flames, static electricity and other heat sources.

Specific conditions

- Avoid contact with the skin, eyes and clothing. Reseal containers containing unused product. Wash hands with a mild soap once work has finished.
- Handle the product in areas with efficient ventilation systems.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

- Store the product in cool, dry, well-ventilated areas.
- Store protected from direct sunlight and away from strong oxidizers. Protect from humidity.
- Store in locations equipped with firefighting equipment.

Incompatible materials

- Strong oxidant and acid.

7.3. Specific end use(s)

No additional information

8.1. Control parameters

Exposure limit values

Particulates not otherwise classified (PNOC):

- Inhalable particulate: 10 mg/m³
- Respirable particulate: 3 mg/m³
- Acute dermal: 229 mg/kg body weight/day
- Acute inhalation: 1400 mg/m³
- Chronic dermal: 8.8 mg/kg body weight/day
- Chronic inhalation: 31 mg/m³
- Freshwater: 3 mg/L
- Sea water: 0.5 mg/L
- Sediments in freshwater: 11 mg/kg w.w.
- Marine sediments: 1.84 mg/kg w.w.
- Soil: 0.58 mg/kg w.w.
- STP: 100 mg/L

DNELs calculated for workers

Established PNEC values for substance

8.2. Exposure controls

Appropriate technical controls

- Provide adequate ventilation and extraction systems in the workplace.
- Have eyewash systems and showers in the workplace.

Individual protection measures, such as personal protective equipment

Respiratory protection

- Breathing protection mask with P2 filter for particles.

Skin protection

- Protection gloves, preferably of butyl rubber and with a minimum thickness of 07 mm, waterproof clothing, long-sleeved work clothing.

Eye/face protection

- Approved safety goggles.

Other protective equipment

- Showers and eye-washers in the work area.

Hygiene measures in the workplace

- Shower with hot water and soap at the end of the day.
- Do not use solvents for cleaning the body. Both clothing and equipment should be changed frequently and dry cleaned.
- Check the condition of the gloves to avoid internal contamination and discard if signs of cuts or holes are detected.
- Use skin creams after work.

S9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Solid with white colour
Odour	Penetrating and disgusting
pH	7 – 9 (solution 100 g/L)
Melting point/freezing point	Not applicable
Initial boiling point and boiling range	Not applicable. The product sublimates at 260 – 295 °C
Flash point	142 °C (DIN 51548)
Evaporation rate	Not applicable
Flammability	Highly-flammable solid
Upper/lower limits of flammability/explosiveness	See Section 9.2
Vapour pressure	< 0.0035 hPa at 30°C
Vapour density	No data
Relative density	1.33 gr/cm ³
Solubility (es)	895 g/l at 25°C in water
Partition coefficient n-octanol/water	Log Pow = -2.18 at 20°C
Auto-ignition temperature	No data
Decomposition temperature	No data
Viscosity	Not applicable
Oxidising properties	Not relevant

9.2. Other information

Explosive properties	<ul style="list-style-type: none">• Explosion class: S13:• Kst: 374 bar.m/s• Lower explosive limit: 20 g/m³• Minimum Ignition Energy: <2mj
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S10 STABILITY AND REACTIVITY

10.1. Reactivity

Stable product without reactivity issues in normal conditions.

10.2. Chemical stability

The product is stable when stored at room temperature in the original container. Stable under normal conditions of use, handling and transport.

10.3 Possibility of hazardous reactions

They have not been described.

10.4. Conditions to avoid

Keep away from heat, sparks and flames. prevent if from reaching temperatures above 100°C (it may burn)

10.5. Incompatible materials

Strong oxidant and acid agents.

10.6. Hazardous decomposition products

Ammonia and formaldehyde may result from thermal decomposition. In case of combustion, see section 5.

S11	TOXICOLOGICAL INFORMATION
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11.1. Information on toxicological effects

Acute toxicity (ingestion)

- LD50: 9.200 mg/kg (rat)

Acute toxicity (dermal)

- LD50: >2.000 mg/kg (rat)

Ingestion

While the product is slightly toxic by ingestion, discomfort and/or adverse effects may result from the ingestion of relatively large amounts of product.

Skin corrosion/irritation

The product is slightly irritating to the skin. Symptoms: redness, swelling and rash. It may cause skin sensitivity and allergy.

Serious eye damage/irritation

May cause mild eye irritation with symptoms typical of conjunctivitis: redness, swelling, pain and tears.

Respiratory or skin sensitization

It may cause slight irritation on the upper respiratory tract (mouth, nose and throat).

Symptoms may include sore nose and throat, coughing and repeated sneezing.

Mutagenicity

Negative results of in vitro and in vivo genetic toxicity tests.

Carcinogenicity

Neither the product or any of the impurities/additives present in amounts exceeding 0.1% have been classified by NTP, IARC or OSHA as a carcinogen or suspected carcinogen.

Reproductive toxicity

Tests in animals have demonstrated that it may cause some adverse effects in high dosages during a long-lasting oral administration.

STOT-single exposure

They have not been described

STOT-repeated exposure

They have not been described

Other information of interest

Without additional information

S12 ECOLOGICAL INFORMATION

12.1. Toxicity

Fish

- 96h-LC₅₀ (Pimephales promelas): 49.800 mg/l.
- 96h-LC₅₀ (Cyprinodon variegatus): 49.000 mg/l.
- 96h-LC₅₀ (Alburnus albur): >10.000 mg/l.

Bacteria

- 12 h - EC₅₀: 64 mg/l (Escherichia coli).

Invertebrates

- 48h-EC₅₀ (Daphnia magna): 36.000 mg/l.

12.2. Persistence and degradability

Abiotic

- The product degrades by reaction with HO radicals.

Biotic

- Easily biodegradable product, both in aerobic and anaerobic conditions.

12.3. Bioaccumulative potential

Based on the calculation of substance properties, BCF is calculated to be 7.2 E(-3); therefore, bioaccumulation risk is insignificant.

12.4. Mobility in soil

The product is not absorbed in soil and the main effect is aquatic.

12.5. Results of PBT and vPvB assessment

The product does not meet the criteria to be considered PBT or vPvB.

12.6. Other adverse effects

Without additional data.

S13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

For the product

- Recycle the product whenever possible. It is not possible to reuse, dissolve or mix the material with a combustible solvent and burn it in an incinerator with an adequate gas treatment system.
- In any case, avoid discharge into the environment in an uncontrolled manner.

Handling

- Use properly sealed and labelled containers. Used containers should be handled so as not to generate dust during collection, transportation and final disposal.

Contaminated containers

- Manage as HW under the laws of the country concerned.
- Never reuse used containers.

General Provisions

- The establishments and companies engaged in the recovery, disposal, collection or transportation of waste should comply with European regulations on waste management or other local, regional or national regulations in force.

S14 TRANSPORT INFORMATION

14.1, 14.2, 14.3, 14.4 y 14.5

Land transport

- UN No. : 1328
- Proper shipping name: Hexamethylenetetramine
- ADR/RID class: 4.1 Classification code: F1
- ID number Hazard: 40
- Packaging group: III
- Hazard label: 4.1 (Flammable)
- Limit code for tunnel access: E

Sea transport

- UN No. : 1328
- Proper shipping name: Hexamethylenetetramine
- IMO/IMDG class: 4.1
- EMS: F-A, S-G
- Packaging group: III
- Hazard label: 4.1 (Flammable)

Air transport

- UN No. : 1328
- Proper shipping name: Hexamethylenetetramine
- ICAO-TI/IATA-DGR class: 4.1
- Packaging group: III
- Maximum load amount: 100 kg
- Hazard label: 4.1 (Flammable)

14.6. Transport in bulk in accordance with appendix II of the Marpol agreement 73/78 and the IBC code

Not applicable.

14.7. Special precautions for user

Avoid direct contact with the product and dispersing it in the environment.

S15 REGULATORY INFORMATION

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

Classification and labelling

- See Section 2 of this MSDS where the hazard and precautionary statements are given.

Regulation (EC) 1907/2006

- Pre-registered N°: 05-2114511089-53-0000

Other regulations

- The product is listed in the following inventories: USA (TSCA), UE (EINECS), Japan (ENCS), Korea (ECL), Australia (AICS), New Zealand (NZ), Philippines (PICCS), China (CLECS).
- Product not covered by Seveso Dir. (Dir. 2012/18/UE).

15.2. Chemical safety assessment

Not available

S16 Other information

Legislation applicable to the material safety data sheets

This SDS has been made in compliance with Reg. (EU) 2015/830 that modifies Annex II-Guide for the elaboration of Safety Data Sheets of Regulation (EC) 1907/2006 (REACH).

Text for the hazard statements (H phrases) referred to in section 2

H228: Flammable solid

H317: May cause an allergic skin reaction

Aclaration

The information given in this document has been compiled based on the best existing information sources, latest available knowledge and according to the current requirements on classification, packaging and labelling of hazardous substances. It does not imply the information is exhaustive or accurate in all cases. It is the user's responsibility to determine the validity of the information contained in this Material Safety Data Sheet to apply depending on the case.