



Safety Data Sheet

RH2FB

Safety Data Sheet dated 4/12/2019, version 1

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

1.1. Product identifier

Mixture identification:

Trade name: RH2FB
Trade code: AP032-6

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

1.3. Details of the supplier of the safety data sheet

Company:
LEGOR GROUP S.p.A.
Via del Lavoro, 1
36050 Bressanvido (VI)
Italy

LEGOR GROUP S.p.A.
tel. +39 0444 467911 fax +39 0444 660677

Competent person responsible for the safety data sheet:

info@legor.com

1.4. Emergency telephone number

Osp. Niguarda Ca' Granda Piazza Ospedale Maggiore, 3 20162 Milano - Tel.: 02-66101029
Azienda Ospedaliera Papa Giovanni XXII, Piazza OMS, 1 24127 Bergamo - Tel.: 800883300
CAV Policlinico "A. Gemelli", Largo Agostino Gemelli, 8 00168 Roma - Tel.: 06-3054343
Az. Osp. "Careggi" U.O. Tossicologia Medica, Largo Brambilla, 3 50134 Firenze - Tel.: 055-7947819
CAVp Osp. Pediatrico Bambino Gesù, Piazza Sant'Onofrio, 4 00165 Roma - Tel.: 06 68593726
Az. Osp. Univ. Foggia, V.le Luigi Pinto, 1 71122 Foggia - Tel.: 0881-732326
Az. Osp. "A. Cardarelli", Via A. Cardarelli, 9 80131 Napoli - Tel.: 081-7472870

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

- ⚠ Danger, Skin Corr. 1A, Causes severe skin burns and eye damage.
- ⚠ Danger, Eye Dam. 1, Causes serious eye damage.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

H314 Causes severe skin burns and eye damage.

Precautionary statements:

P280 Wear protective gloves/protective clothing/eye protection/face protection.
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].
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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/...

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P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

None

Contains

Rhodium (III) sulfate
sulphuric acid 97-98%

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

| Qty | Name | Ident. Number | Classification |
|-------------------|-----------------------|--|--|
| >= 15% - < 20% | sulphuric acid 97-98% | Index number: CAS: 7664-93-9 EC: 231-639-5 | ⚠ 3.2/1A Skin Corr. 1A H314 Specific Concentration Limits: C >= 15%: Skin Corr. 1A H314 5% <= C < 15%: Skin Irrit. 2 H315 5% <= C < 15%: Eye Irrit. 2 H319 |
| >= 3% - < 5% | Rhodium (III) sulfate | CAS: 10489-46-0 | ⚠ 3.2/1A Skin Corr. 1A H314 |

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

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

Protect uninjured eye.

In case of Ingestion:

Do NOT induce vomiting.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

None

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

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SECTION 5: Firefighting measures

- 5.1. Extinguishing media
 - Suitable extinguishing media:
 - Water.
 - Carbon dioxide (CO₂).
 - Extinguishing media which must not be used for safety reasons:
 - None in particular.
 - 5.2. Special hazards arising from the substance or mixture
 - Do not inhale explosion and combustion gases.
 - Burning produces heavy smoke.
 - 5.3. Advice for firefighters
 - Use suitable breathing apparatus .
 - Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
 - Move undamaged containers from immediate hazard area if it can be done safely.
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SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures
 - Wear personal protection equipment.
 - Remove persons to safety.
 - See protective measures under point 7 and 8.
 - 6.2. Environmental precautions
 - Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
 - Retain contaminated washing water and dispose it.
 - In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
 - Suitable material for taking up: absorbing material, organic, sand
 - 6.3. Methods and material for containment and cleaning up
 - Wash with plenty of water.
 - 6.4. Reference to other sections
 - See also section 8 and 13
-

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
 - Avoid contact with skin and eyes, inhalation of vapours and mists.
 - Don't use empty container before they have been cleaned.
 - Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
 - See also section 8 for recommended protective equipment.
 - Advice on general occupational hygiene:
 - Contaminated clothing should be changed before entering eating areas.
 - Do not eat or drink while working.
 - 7.2. Conditions for safe storage, including any incompatibilities
 - Keep away from food, drink and feed.
 - Incompatible materials:
 - None in particular.
 - Instructions as regards storage premises:
 - Adequately ventilated premises.
 - 7.3. Specific end use(s)
 - None in particular
-

SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
 - sulphuric acid 97-98% - CAS: 7664-93-9
 - EU - TWA(8h): 0.05 mg/m³ - Notes: Thoracic fraction
 - ACGIH - TWA(8h): 0.2 mg/m³ - Notes: (T), A2(M) - Pulm func

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DNEL Exposure Limit Values

N.A.

PNEC Exposure Limit Values

N.A.

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Properties | Value | Method: | Notes: |
|---|-------------------|---------|--------|
| Appearance and colour: | Dark brown liquid | -- | -- |
| Odour: | Odourless | -- | -- |
| Odour threshold: | N.A. | -- | -- |
| pH: | 0 | -- | -- |
| Melting point / freezing point: | N.A. | -- | -- |
| Initial boiling point and boiling range: | N.A. | -- | -- |
| Flash point: | N.A. | -- | -- |
| Evaporation rate: | N.A. | -- | -- |
| Solid/gas flammability: | N.A. | -- | -- |
| Upper/lower flammability or explosive limits: | N.A. | -- | -- |
| Vapour pressure: | N.A. | -- | -- |
| Vapour density: | N.A. | -- | -- |
| Relative density: | 1.2 g/ml | -- | -- |
| Solubility in water: | Total | -- | -- |

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| | | | |
|--|------|----|----|
| Solubility in oil: | | -- | -- |
| Partition coefficient (n-octanol/water): | N.A. | -- | -- |
| Auto-ignition temperature: | N.A. | -- | -- |
| Decomposition temperature: | N.A. | -- | -- |
| Viscosity: | N.A. | -- | -- |
| Explosive properties: | N.A. | -- | -- |
| Oxidizing properties: | N.A. | -- | -- |

9.2. Other information

| Properties | Value | Method: | Notes: |
|--------------------------------------|-------|---------|--------|
| Miscibility: | N.A. | -- | -- |
| Fat Solubility: | N.A. | -- | -- |
| Conductivity: | N.A. | -- | -- |
| Substance Groups relevant properties | N.A. | -- | -- |

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

It may generate flammable gases on contact with dithiocarbamates, elementary metals, and nitrides.

It may generate toxic gases on contact with amides, aliphatic and aromatic amines, azo, diazo, and hydrazine compounds, carbamates, inorganic fluorides, halogenated organic substances, isocyanates, sulphides, organic nitrous compounds, organophosphat

It may catch fire on contact with alcohols and glycols, aldehydes, dithiocarbamates, esthers, ethers, aromatic and aliphatic hydrocarbons, halogenated organic substances, isocyanates, ketones, sulphides, organic nitrous compounds, phenols, and cresols.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the product:

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a) acute toxicity

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- Not classified
Based on available data, the classification criteria are not met
- b) skin corrosion/irritation
The product is classified: Skin Corr. 1A H314
- c) serious eye damage/irritation
The product is classified: Eye Dam. 1 H318
- d) respiratory or skin sensitisation
Not classified
Based on available data, the classification criteria are not met
- e) germ cell mutagenicity
Not classified
Based on available data, the classification criteria are not met
- f) carcinogenicity
Not classified
Based on available data, the classification criteria are not met
- g) reproductive toxicity
Not classified
Based on available data, the classification criteria are not met
- h) STOT-single exposure
Not classified
Based on available data, the classification criteria are not met
- i) STOT-repeated exposure
Not classified
Based on available data, the classification criteria are not met
- j) aspiration hazard
Not classified
Based on available data, the classification criteria are not met
- Toxicological information of the main substances found in the product:
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Sulfuric acid
Inhalation of concentrated vapours may cause damages to respiratory system
causes burns to skin and mucosa
causes severe burns to eyes
- Other toxicological data not available

SECTION 12: Ecological information

- 12.1. Toxicity
Adopt good working practices, so that the product is not released into the environment.
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Not classified for environmental hazards
Based on available data, the classification criteria are not met
- 12.2. Persistence and degradability
None
N.A.
- 12.3. Bioaccumulative potential
N.A.
- 12.4. Mobility in soil
N.A.
- 12.5. Results of PBT and vPvB assessment
vPvB Substances: None - PBT Substances: None
- 12.6. Other adverse effects
None

SECTION 13: Disposal considerations

- 13.1. Waste treatment methods

AP032-6/1

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Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information



- 14.1. UN number
ADR-UN Number: 2796
IATA-UN Number: 2796
IMDG-UN Number: 2796
- 14.2. UN proper shipping name
ADR-Shipping Name: SULPHURIC ACID WITH 51% OR LESS ACID
IATA-Shipping Name: SULPHURIC ACID WITH 51% OR LESS ACID
IMDG-Shipping Name: SULPHURIC ACID WITH 51% OR LESS ACID
- 14.3. Transport hazard class(es)
ADR-Class: 8
ADR - Hazard identification number: 80
IATA-Class: 8
IATA-Label: 8
IMDG-Class: 8
IMDG-Class: 8
- 14.4. Packing group
ADR-Packing Group: II
IATA-Packing group: II
IMDG-Packing group: II
- 14.5. Environmental hazards
ADR-Environmental Pollutant: No
IMDG-Marine pollutant: No
- 14.6. Special precautions for user
Rail (RID): 8
ADR-Subsidiary hazards: -
ADR-S.P.: -
ADR-Transport category (Tunnel restriction code): 2 (E)
IATA-Passenger Aircraft: 851
IATA-Subsidiary hazards: -
IATA-Cargo Aircraft: 855
IATA-S.P.: -
IATA-ERG: 8L
IMDG-EmS: F-A , S-B
IMDG-Subsidiary hazards: -
IMDG-Stowage and handling: Category B
IMDG-Segregation: -
- 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
N.A.

SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) 2015/830

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Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

None

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)
Regulation (EC) nr 648/2004 (detergents).
Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1
None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Text of phrases referred to under heading 3:

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

| Hazard class and hazard category | Code | Description |
|----------------------------------|--------|--------------------------------|
| Skin Corr. 1A | 3.2/1A | Skin corrosion, Category 1A |
| Skin Irrit. 2 | 3.2/2 | Skin irritation, Category 2 |
| Eye Dam. 1 | 3.3/1 | Serious eye damage, Category 1 |
| Eye Irrit. 2 | 3.3/2 | Eye irritation, Category 2 |

This safety data sheet has been completely updated in compliance to Regulation 2015/830. Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

| Classification according to Regulation (EC) Nr. 1272/2008 | Classification procedure |
|---|----------------------------|
| Skin Corr. 1A, H314 | On basis of test data (pH) |
| Eye Dam. 1, H318 | On basis of test data (pH) |

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,

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Commission of the European Communities
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van
Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

| | |
|-------------|--|
| ADR: | European Agreement concerning the International Carriage of Dangerous Goods by Road. |
| ATE: | Acute Toxicity Estimate |
| ATEmix: | Acute toxicity Estimate (Mixtures) |
| CAS: | Chemical Abstracts Service (division of the American Chemical Society). |
| CLP: | Classification, Labeling, Packaging. |
| DNEL: | Derived No Effect Level. |
| EINECS: | European Inventory of Existing Commercial Chemical Substances. |
| GefStoffVO: | Ordinance on Hazardous Substances, Germany. |
| GHS: | Globally Harmonized System of Classification and Labeling of Chemicals. |
| IATA: | International Air Transport Association. |
| IATA-DGR: | Dangerous Goods Regulation by the "International Air Transport Association" (IATA). |
| ICAO: | International Civil Aviation Organization. |
| ICAO-TI: | Technical Instructions by the "International Civil Aviation Organization" (ICAO). |
| IMDG: | International Maritime Code for Dangerous Goods. |
| INCI: | International Nomenclature of Cosmetic Ingredients. |
| KSt: | Explosion coefficient. |
| LC50: | Lethal concentration, for 50 percent of test population. |
| LD50: | Lethal dose, for 50 percent of test population. |
| PNEC: | Predicted No Effect Concentration. |
| RID: | Regulation Concerning the International Transport of Dangerous Goods by Rail. |
| STEL: | Short Term Exposure limit. |
| STOT: | Specific Target Organ Toxicity. |
| TLV: | Threshold Limiting Value. |
| TWA: | Time-weighted average |
| WGK: | German Water Hazard Class. |