

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878



## Ribavirin Liquid Formulation

Version  
4.2

Revision Date:  
14.04.2025

SDS Number:  
406978-00025

Date of last issue: 28.09.2024  
Date of first issue: 10.12.2015

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

#### 1.1 Product identifier

Trade name : Ribavirin Liquid Formulation

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

Use of the Substance/Mixture : Pharmaceutical

Recommended restrictions on use : Not applicable

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

Company : MSD  
Kilsheelan  
Clonmel Tipperary, IE

Telephone : 353-51-601000

E-mail address of person responsible for the SDS : EHSDATASTEWARD@msd.com

#### 1.4 Emergency telephone number

+1-908-423-6000

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Germ cell mutagenicity, Category 2  
Reproductive toxicity, Category 1B

H341: Suspected of causing genetic defects.  
H360Df: May damage the unborn child. Suspected of damaging fertility.

Specific target organ toxicity - repeated exposure, Category 2

H373: May cause damage to organs through prolonged or repeated exposure.

#### 2.2 Label elements

##### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

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|                          |   |   |
|--------------------------|---|---|
| Hazard statements        | : | H341 Suspected of causing genetic defects.<br>H360Df May damage the unborn child. Suspected of damaging fertility.<br>H373 May cause damage to organs through prolonged or repeated exposure.   |
| Precautionary statements | : | <b>Prevention:</b><br>P201 Obtain special instructions before use.<br>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.<br><b>Response:</b><br>P308 + P313 IF exposed or concerned: Get medical advice/ attention.<br><b>Storage:</b><br>P405 Store locked up. |

Hazardous components which must be listed on the label:

Ribavirin

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Components

| Chemical name | CAS-No.<br>EC-No.<br>Index-No.<br>Registration number | Classification   | Concentration<br>(% w/w) |
|---------------|---|--|--------------------------|
| Ribavirin     | 36791-04-5  | Acute Tox. 4; H302<br>Muta. 2; H341<br>Repr. 1B; H360Df<br>STOT SE 3; H335<br>STOT RE 1; H372<br>(Blood) | >= 1 - < 10              |

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For explanation of abbreviations see section 16.

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## SECTION 4: First aid measures

### 4.1 Description of first aid measures

|                            |   |
|----------------------------|---|
| General advice             | : In the case of accident or if you feel unwell, seek medical advice immediately.<br>When symptoms persist or in all cases of doubt seek medical advice.  |
| Protection of first-aiders | : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).   |
| If inhaled                 | : If inhaled, remove to fresh air.<br>Get medical attention.  |
| In case of skin contact    | : In case of contact, immediately flush skin with soap and plenty of water.<br>Remove contaminated clothing and shoes.<br>Get medical attention.<br>Wash clothing before reuse.<br>Thoroughly clean shoes before reuse. |
| In case of eye contact     | : Flush eyes with water as a precaution.<br>Get medical attention if irritation develops and persists.  |
| If swallowed               | : If swallowed, DO NOT induce vomiting.<br>Get medical attention.<br>Rinse mouth thoroughly with water.   |

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

|       |  |
|-------|--|
| Risks | : Suspected of causing genetic defects.<br>May damage the unborn child. Suspected of damaging fertility.<br>May cause damage to organs through prolonged or repeated exposure. |
|-------|--|

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

|           |   |
|-----------|---|
| Treatment | : Treat symptomatically and supportively. |
|-----------|---|

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

|                              |  |
|------------------------------|--|
| Suitable extinguishing media | : Water spray<br>Alcohol-resistant foam<br>Carbon dioxide (CO <sub>2</sub> )<br>Dry chemical |
|------------------------------|--|

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Unsuitable extinguishing media : None known.

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

Specific hazards during fire-fighting : Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides

### 5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

## SECTION 6: Accidental release measures

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

Personal precautions : Use personal protective equipment. Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

### 6.2 Environmental precautions

Environmental precautions : Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

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

Methods for cleaning up : Soak up with inert absorbent material. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.

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Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

### 6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

|                         |  |
|-------------------------|--|
| Technical measures      | : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.  |
| Local/Total ventilation | : If sufficient ventilation is unavailable, use with local exhaust ventilation.  |
| Advice on safe handling | : Do not get on skin or clothing.<br>Do not breathe mist or vapours.<br>Do not swallow.<br>Avoid contact with eyes.<br>Wash skin thoroughly after handling.<br>Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment<br>Keep container tightly closed.<br>Do not eat, drink or smoke when using this product.<br>Take care to prevent spills, waste and minimize release to the environment.                              |
| Hygiene measures        | : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use.<br>The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls. |

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

|   |  |
|---|--|
| Requirements for storage areas and containers | : Keep in properly labelled containers. Store locked up. Keep tightly closed. Store in accordance with the particular national regulations.                      |
| Advice on common storage                      | : Do not store with the following product types:<br>Strong oxidizing agents<br>Self-reactive substances and mixtures<br>Organic peroxides<br>Explosives<br>Gases |

### 7.3 Specific end use(s)

|                 |                     |
|-----------------|---------------------|
| Specific use(s) | : No data available |
|-----------------|---------------------|

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### Occupational Exposure Limits

| Components       | CAS-No.    | Value type (Form of exposure) | Control parameters             | Basis               |
|------------------|------------|-------------------------------|--------------------------------|---------------------|
| Propylene glycol | 57-55-6    | TWA                           | 25 ppm<br>79 mg/m <sup>3</sup> | FOR-2011-12-06-1358 |
| Ribavirin        | 36791-04-5 | Wipe limit                    | 400 µg/100 cm <sup>2</sup>     | Internal            |

##### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006

| Substance name   | End Use   | Exposure routes | Potential health effects   | Value                 |
|------------------|-----------|-----------------|----------------------------|-----------------------|
| Propylene glycol | Workers   | Inhalation      | Long-term local effects    | 10 mg/m <sup>3</sup>  |
|                  | Workers   | Inhalation      | Long-term systemic effects | 168 mg/m <sup>3</sup> |
|                  | Consumers | Inhalation      | Long-term local effects    | 10 mg/m <sup>3</sup>  |
|                  | Consumers | Inhalation      | Long-term systemic effects | 50 mg/m <sup>3</sup>  |
| Glycerine        | Workers   | Inhalation      | Long-term local effects    | 56 mg/m <sup>3</sup>  |
|                  | Consumers | Ingestion       | Long-term systemic effects | 229 mg/kg bw/day      |
|                  | Consumers | Inhalation      | Long-term local effects    | 33 mg/m <sup>3</sup>  |

##### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

| Substance name   | Environmental Compartment | Value                        |
|------------------|---------------------------|------------------------------|
| Propylene glycol | Fresh water               | 260 mg/l                     |
|                  | Freshwater - intermittent | 183 mg/l                     |
|                  | Marine water              | 26 mg/l                      |
|                  | Sewage treatment plant    | 20000 mg/l                   |
|                  | Fresh water sediment      | 572 mg/kg dry weight (d.w.)  |
|                  | Marine sediment           | 57,2 mg/kg dry weight (d.w.) |
|                  | Soil                      | 50 mg/kg dry weight (d.w.)   |
| Glycerine        | Fresh water               | 0,885 mg/l                   |
|                  | Marine water              | 0,0885 mg/l                  |
|                  | Intermittent use/release  | 8,85 mg/l                    |
|                  | Sewage treatment plant    | 1000 mg/l                    |
|                  | Fresh water sediment      | 3,3 mg/kg dry weight (d.w.)  |
|                  | Marine sediment           | 0,33 mg/kg dry weight (d.w.) |

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|  |      |                               |
|--|------|-------------------------------|
|  | Soil | 0,141 mg/kg dry weight (d.w.) |
|--|------|-------------------------------|

### 8.2 Exposure controls

#### Engineering measures

Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., drip-less quick connections).

All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.

Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of the compound to uncontrolled areas (e.g., open-face containment devices).

Minimize open handling.

#### Personal protective equipment

|                          |  |
|--------------------------|--|
| Eye/face protection      | : Wear safety glasses with side shields or goggles.<br>If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.<br>Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols. |
| Hand protection          |  |
| Material                 | : Chemical-resistant gloves  |
| Remarks                  | : Consider double gloving.   |
| Skin and body protection | : Work uniform or laboratory coat.<br>Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces.<br>Use appropriate degowning techniques to remove potentially contaminated clothing.                    |
| Respiratory protection   | : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.<br>Filter should conform to NS EN 14387   |
| Filter type              | : Combined particulates and organic vapour type (A-P)  |

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                   |                     |
|-----------------------------------|---------------------|
| Physical state                    | : liquid            |
| Colour                            | : clear             |
| Odour                             | : No data available |
| Odour Threshold                   | : No data available |
| Melting point/freezing point      | : No data available |
| Initial boiling point and boiling | : No data available |

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range

Flammability (solid, gas) : Not applicable

Flammability (liquids) : No data available

Upper explosion limit / Upper  
flammability limit : No data available

Lower explosion limit / Lower  
flammability limit : No data available

Flash point : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

pH : 4,8 - 5,5

Viscosity  
Viscosity, kinematic : No data available

Solubility(ies)  
Water solubility : No data available

Partition coefficient: n-  
octanol/water : Not applicable

Vapour pressure : No data available

Relative density : No data available

Density : No data available

Relative vapour density : No data available

Particle characteristics  
Particle size : Not applicable

## 9.2 Other information

Explosives : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Evaporation rate : No data available

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### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

Not classified as a reactivity hazard.

#### 10.2 Chemical stability

Stable under normal conditions.

#### 10.3 Possibility of hazardous reactions

Hazardous reactions : Can react with strong oxidizing agents.

#### 10.4 Conditions to avoid

Conditions to avoid : None known.

#### 10.5 Incompatible materials

Materials to avoid : Oxidizing agents

#### 10.6 Hazardous decomposition products

No hazardous decomposition products are known.

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### SECTION 11: Toxicological information

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

Information on likely routes of exposure : Inhalation  
Skin contact  
Ingestion  
Eye contact

#### Acute toxicity

Not classified based on available information.

#### Product:

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg  
Method: Calculation method

#### Components:

#### **Ribavirin:**

Acute oral toxicity : LD50 (Rat): 4.116 - 5.584 mg/kg  
LD50 (Mouse): > 10.000 mg/kg  
LD50 (Dog): >= 1.500 mg/kg

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Acute toxicity (other routes of ) : LD50 (Rat): 1.554 - 1.758 mg/kg

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administration)      Application Route: Intraperitoneal

LD50 (Mouse): 1.268 mg/kg  
Application Route: Intraperitoneal

### Skin corrosion/irritation

Not classified based on available information.

#### Components:

##### Ribavirin:

Remarks : No data available  
May irritate skin.

### Serious eye damage/eye irritation

Not classified based on available information.

#### Components:

##### Ribavirin:

Remarks : No data available  
May irritate eyes.

### Respiratory or skin sensitisation

#### Skin sensitisation

Not classified based on available information.

#### Respiratory sensitisation

Not classified based on available information.

#### Components:

##### Ribavirin:

Remarks : No data available

### Germ cell mutagenicity

Suspected of causing genetic defects.

#### Components:

##### Ribavirin:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative

Test Type: In vitro mammalian cell gene mutation test  
Test system: Rodent cell line  
Result: positive

Test Type: Chromosomal aberration  
Test system: Human lymphocytes  
Result: negative

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|                                    |  |
|------------------------------------|--|
| Genotoxicity in vivo               | : Test Type: dominant lethal test<br>Species: Rat<br>Result: negative        |
|                                    | Test Type: Mouse Lymphoma<br>Species: Mouse<br>Result: positive              |
|                                    | Test Type: Micronucleus test<br>Species: Mouse<br>Result: positive           |
| Germ cell mutagenicity- Assessment | : Positive result(s) from in vivo mammalian somatic cell mutagenicity tests. |

### Carcinogenicity

Not classified based on available information.

### Components:

#### Ribavirin:

|                   |  |
|-------------------|--|
| Species           | : Mouse  |
| Application Route | : Oral   |
| Exposure time     | : 6 Months   |
| LOAEL             | : 75 mg/kg body weight   |
| Result            | : negative   |
| Target Organs     | : Blood, Testes  |
| Remarks           | : The mechanism or mode of action may not be relevant in humans. |
| Species           | : Rat  |
| Application Route | : Oral   |
| Exposure time     | : 2 Years  |
| NOAEL             | : 10 mg/kg body weight   |
| Result            | : negative   |
| Remarks           | : The mechanism or mode of action may not be relevant in humans. |
| Species           | : Mouse  |
| Application Route | : Oral   |
| Exposure time     | : 18 Months  |
| Result            | : negative   |
| Remarks           | : The mechanism or mode of action may not be relevant in humans. |

### Reproductive toxicity

May damage the unborn child. Suspected of damaging fertility.

### Components:

#### Ribavirin:

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### Effects on fertility

- : Test Type: Fertility  
Species: Rat, male  
Application Route: Intraperitoneal injection  
Fertility: LOAEL: < 20 mg/kg body weight  
Symptoms: Reduced fertility  
Result: positive
  
- Test Type: Fertility  
Species: Mouse, male  
Application Route: Oral  
Fertility: LOAEL: 35 mg/kg body weight  
Symptoms: Reduced fertility  
Result: positive
  
- Test Type: Fertility  
Species: Rat, females  
Application Route: Oral  
Fertility: NOAEL: 10 mg/kg body weight  
Result: Animal testing did not show any effects on fertility.
  
- Test Type: Fertility  
Species: Rat, male  
Application Route: Oral  
Fertility: NOAEL: 160 mg/kg body weight  
Result: Animal testing did not show any effects on fertility.

### Effects on foetal development

- : Test Type: Development  
Species: Rat, female  
Application Route: Oral  
Developmental Toxicity: LOAEL: <= 1 mg/kg body weight  
Symptoms: Reduced body weight, Reduced number of viable fetuses, Skeletal malformations  
Result: Embryotoxic effects and adverse effects on the offspring were detected.

Test Type: Development  
Species: Rabbit, female  
Application Route: Oral  
General Toxicity Maternal: LOAEL: 1 mg/kg body weight  
Developmental Toxicity: LOAEL: 1 mg/kg body weight  
Symptoms: Reduced body weight, Skeletal malformations  
Result: Embryotoxic effects and adverse effects on the offspring were detected.

Test Type: Development  
Species: Hamster  
Application Route: Oral  
Developmental Toxicity: LOAEL: 2,5 mg/kg body weight  
Symptoms: Skeletal and visceral variations, Total Resorptions / resorption rate  
Result: Embryotoxic effects and adverse effects on the offspring were detected.

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Test Type: Embryo-foetal development  
Species: Rat  
Application Route: Oral  
General Toxicity Maternal: NOAEL: 0,3 mg/kg body weight  
Embryo-foetal toxicity: LOAEL: 1 mg/kg body weight  
Symptoms: Skeletal malformations  
Result: positive

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, based on animal experiments., Clear evidence of adverse effects on development, based on animal experiments.

### STOT - single exposure

Not classified based on available information.

#### Components:

##### Ribavirin:

Assessment : May cause respiratory irritation.

### STOT - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

#### Components:

##### Ribavirin:

Exposure routes : Ingestion  
Target Organs : Blood  
Assessment : Causes damage to organs through prolonged or repeated exposure.

### Repeated dose toxicity

#### Components:

##### Ribavirin:

Species : Monkey  
LOAEL : 30 mg/kg  
Exposure time : 10 d  
Target Organs : Blood, Gastrointestinal tract

Species : Rat  
NOAEL : 7,6 mg/kg  
Application Route : Inhalation  
Exposure time : 90 d  
Target Organs : Blood, Lungs

Species : Dog  
NOAEL : 5 mg/kg  
Application Route : Oral  
Exposure time : 1 yr  
Target Organs : Blood, Gastrointestinal tract

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|                   |   |                               |
|-------------------|---|-------------------------------|
| Species           | : | Mouse                         |
| NOAEL             | : | 20 mg/kg                      |
| Application Route | : | Oral                          |
| Exposure time     | : | 18 Months                     |
| Target Organs     | : | Blood, Cardio-vascular system |

### Aspiration toxicity

Not classified based on available information.

## 11.2 Information on other hazards

### Endocrine disrupting properties

Not classified based on available information.

### Product:

|            |   |   |
|------------|---|---|
| Assessment | : | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
|------------|---|---|

### Experience with human exposure

#### Components:

##### **Ribavirin:**

|              |   |  |
|--------------|---|--|
| Inhalation   | : | Symptoms: Headache, Dizziness<br>Remarks: Based on Human Evidence  |
| Skin contact | : | Remarks: May cause eye irritation.<br>Based on Human Evidence  |
| Eye contact  | : | Remarks: May cause eye irritation.<br>Based on Human Evidence  |
| Ingestion    | : | Symptoms: blood effects, immune system effects, anorexia, Dizziness, insomnia, Fatigue, Headache, Itching, Rash, liver function change, Gastrointestinal disturbance |

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Components:

##### **Ribavirin:**

|   |   |   |
|---|---|---|
| Toxicity to fish                                    | : | LC50 (Oncorhynchus mykiss (rainbow trout)): > 119 mg/l<br>Exposure time: 96 h                           |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 117 mg/l<br>Exposure time: 48 h<br>Method: OECD Test Guideline 202 |
| Toxicity to algae/aquatic                           | : | EC50 (Pseudokirchneriella subcapitata (green algae)): > 119   |

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## Ribavirin Liquid Formulation

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|                |                              |                             |   |
|----------------|------------------------------|-----------------------------|---|
| Version<br>4.2 | Revision Date:<br>14.04.2025 | SDS Number:<br>406978-00025 | Date of last issue: 28.09.2024<br>Date of first issue: 10.12.2015 |
|----------------|------------------------------|-----------------------------|---|

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|                            |  |
|----------------------------|--|
| plants                     | mg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 201   |
|                            | NOEC (Pseudokirchneriella subcapitata (green algae)): 6,9 mg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 201 |
| Toxicity to microorganisms | : EC50 : > 1.000 mg/l<br>Exposure time: 3 h<br>Test Type: Respiration inhibition<br>Method: OECD Test Guideline 209      |

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

#### Components:

##### Ribavirin:

Partition coefficient: n-octanol/water : log Pow: 0,971

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

#### Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Endocrine disrupting properties

#### Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 12.7 Other adverse effects

No data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

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|                        |  |
|------------------------|--|
| Product                | : Dispose of in accordance with local regulations.<br>According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.<br>Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.<br>Do not dispose of waste into sewer. |
| Contaminated packaging | : Empty containers should be taken to an approved waste handling site for recycling or disposal.<br>If not otherwise specified: Dispose of as unused product.  |

## SECTION 14: Transport information

### 14.1 UN number or ID number

|      |                                     |
|------|-------------------------------------|
| ADN  | : Not regulated as a dangerous good |
| ADR  | : Not regulated as a dangerous good |
| RID  | : Not regulated as a dangerous good |
| IMDG | : Not regulated as a dangerous good |
| IATA | : Not regulated as a dangerous good |

### 14.2 UN proper shipping name

|      |                                     |
|------|-------------------------------------|
| ADN  | : Not regulated as a dangerous good |
| ADR  | : Not regulated as a dangerous good |
| RID  | : Not regulated as a dangerous good |
| IMDG | : Not regulated as a dangerous good |
| IATA | : Not regulated as a dangerous good |

### 14.3 Transport hazard class(es)

|      |                                     |
|------|-------------------------------------|
| ADN  | : Not regulated as a dangerous good |
| ADR  | : Not regulated as a dangerous good |
| RID  | : Not regulated as a dangerous good |
| IMDG | : Not regulated as a dangerous good |
| IATA | : Not regulated as a dangerous good |

### 14.4 Packing group

|                  |                                     |
|------------------|-------------------------------------|
| ADN              | : Not regulated as a dangerous good |
| ADR              | : Not regulated as a dangerous good |
| RID              | : Not regulated as a dangerous good |
| IMDG             | : Not regulated as a dangerous good |
| IATA (Cargo)     | : Not regulated as a dangerous good |
| IATA (Passenger) | : Not regulated as a dangerous good |

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### 14.5 Environmental hazards

Not regulated as a dangerous good

### 14.6 Special precautions for user

Not applicable

### 14.7 Maritime transport in bulk according to IMO instruments

Remarks : Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)

: Conditions of restriction for the following entries should be considered: Number on list 3

Number on list 75: If you intend to use this product as tattoo ink, please contact your vendor.

Substance(s) or mixture(s) are listed here according to their appearance in the regulation, irrespective of their use/purpose or the conditions of the restriction. Please refer to the conditions in corresponding Regulation to determine whether an entry is applicable to the placing on the market or not.

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).

: Not applicable

REACH - List of substances subject to authorisation (Annex XIV)

: Not applicable

Regulation (EU) No 2024/590 on substances that deplete the ozone layer

: Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast)

: Not applicable

Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals

: Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Not applicable

### Other regulations:

Note the Working Environment Act § 4-1 and § 4-2 on requirements for the employer to protect pregnant employees against discomfort and injury as a result of the work situation and the working environment.

Note the regulation on organization, leadership and participation, chapter 12 on the work of

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children and young people.

### The components of this product are reported in the following inventories:

|       |                  |
|-------|------------------|
| AICS  | : not determined |
| DSL   | : not determined |
| IECSC | : not determined |

### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

|                   |  |
|-------------------|--|
| Other information | : Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines. |
|-------------------|--|

### Full text of H-Statements

|        |  |
|--------|--|
| H302   | : Harmful if swallowed.  |
| H335   | : May cause respiratory irritation.  |
| H341   | : Suspected of causing genetic defects.  |
| H360Df | : May damage the unborn child. Suspected of damaging fertility.                |
| H372   | : Causes damage to organs through prolonged or repeated exposure if swallowed. |

### Full text of other abbreviations

|                       |  |
|-----------------------|--|
| Acute Tox.            | : Acute toxicity                                     |
| Muta.                 | : Germ cell mutagenicity                             |
| Repr.                 | : Reproductive toxicity                              |
| STOT RE               | : Specific target organ toxicity - repeated exposure |
| STOT SE               | : Specific target organ toxicity - single exposure   |
| FOR-2011-12-06-1358   | : Norway. Occupational Exposure limits               |
| FOR-2011-12-06-1358 / | : Long term exposure limit                           |
| TWA                   |  |

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization;

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KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

### Further information

Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

### Classification of the mixture:

|           |        |
|-----------|--------|
| Muta. 2   | H341   |
| Repr. 1B  | H360Df |
| STOT RE 2 | H373   |

### Classification procedure:

|                    |
|--------------------|
| Calculation method |
| Calculation method |
| Calculation method |

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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

NO / EN