# SAFETY DATA SHEET

# Ryon-Märk GIGANT, Ryon-Märk MEDIUM

In accordance with Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Reach

**Issue date** **2023/03/31**

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

### 1.1 Product identifier

**Trade name:** Ryon-Märk GIGANT **Product code:** 101 (black)
**Trade name:** Ryon-Märk MEDIUM, **Product code:** 111 (black)

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

**Use:** Solvent-based marker. Professional use only.
**Uses advised against:** Other applications than above mentioned are advised against

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

Ryon-Märk AB
Bodarna 6
SE-825 32 Iggesund, Sweden
Phone: +46 (0)650 933 70
E-mail: info@ryonmark.se
Website: http://ryonmark.se/
Contact person: Liselotte Lättman

### 1.4 Emergency telephone number

Only emergency call number: 111 (NHS) For poisoning emergencies in UK

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Flam. Liq. 3; H226
Asp. Tox. 1; H304
Acute tox. 4; H312
Acute tox. 4; H332
Skin Irrit. 2; H315
Eye Irrit.2; H319
Muta. 2; H341
STOT SE 3; H335
STOT RE 2; H373

Flammable liquid and vapour. May be fatal if swallowed and enters airways. Harmful in contact with skin or if inhaled. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. Suspected of causing genetic defects. May cause damage to organs (the central nervous system) through prolonged or repeated exposure.
Classification procedure: Calculation method.

### 2.2 Label elements

*GHS02* *GHS07* *GHS08*

**Signal word:** Warning
Contains xylene and black pigment (Solvent Black 3)

**Hazard statements:**
H226 Flammable liquid and vapour.
H312 + H332 Harmful in contact with skin or if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H341 Suspected of causing genetic defects.
H373 May cause damage to organs through prolonged or repeated exposure.

**Precautionary statements:**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing vapours.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P312 Call a POISON CENTER or doctor / physician if you feel unwell.
P403+P235 Store in a well-ventilated place. Keep cool.

**Labeling of packages whose content does not exceed 125 ml:**
According to 1.5.2.1.1 of Annex I to CLP, the text for the following statements can be omitted:
H226, P210, P403 + P235, H315, H319

There is no free liquid in the marker, so there is no aspiration hazard of liquid into the lungs.
H304 has therefore been omitted from the labeling information.

### 2.3 Other hazards

The chemical contains no PBT or vPvB substances.
The chemical does not contain any known or suspected endocrine disruptors.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

### 3.2 Mixtures

| *Substance* | *CAS-nr* | *EC No* | *Conc.(%)* | *Classification* |
|---|---|---|---|---|
| *Xylene* | | *CAS No: 1330-20-7*<br>*EC No: 215-535-7*<br>*Index No: 601-022-00-9*<br>*REACH reg. No: 01-2119488216-32* | *60 - 75 %* | *Flam. Liq. 3; H226*<br>*Asp. Tox. 1; H304*<br>*Acute tox. 4; H312, H332*<br>*Skin Irrit. 2; H315*<br>*Eye Irrit.2; H319*<br>*STOT SE 3; H335*<br>*STOT RE 2; H373*<br>*LC50 (6 h): 15,7 mg/l* |
| *Acetone* | | *CAS No: 67-64-1*<br>*EC No: 200-662-2*<br>*Inde Nor: 606-001-00-8*<br>*REACH reg. No: 01-2119471330-49* | *20 - 30 %* | *Flam. Liq. 2;H225*<br>*Eye Irrit. 2;H319*<br>*STOT SE 3;H336*<br>*EUH066* |
| *Pigment (2,3-dihydro-2,2-dimethyl-6 -((4-(phenylazo)-1-naphthyl)azo) perimidine)* | | *CAS No: 4197-25-5*<br>*EC No: 224-087-1* | *5 - 15 %* | *Muta. 2; H341* |

The xylene in the mixture is a UVCB substance that includes ortho-, meta-, para-xylene and ethylbenzene.
See section 16 for explanation of hazard classes and hazard statements above.

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

*Generally:* Contact a POISON INFORMATION CENTER or doctor if symptoms persist.
*After inhalation:* Fresh air and rest.
*After skin contact:* Remove contaminated clothing and wash skin with soap and water. Then apply skin cream to re-moisturize the skin.
*After eye contact:* Promptly rinse eyes with plenty of water (tempered at 20-30°C) for at least 5 minutes. Keep the eyelids wide apart while rinsing. Remove any contact lenses if possible.
*After swallowing:* Ingestion is not likely due to the shape of the product (there is no free liquid in the marker).

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

Inhalation can irritate the airways and cause headache, dizziness, nausea and has a sedating effect.
Skin contact degreases the skin and causes itching and redness. Exposure to a large skin surface can produce similar symptoms as for inhalation.
The vapors can cause itching, redness and tearing in the eyes.
Ingestion of free liquid may cause aspiration risk to the lungs, but the marker does not contain free liquid.

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

Treat symptomatically.

## 5. FIREFIGHTING MEASURES

### 5.1 Extinguishing media

All common fire extinguishing agents may be used, choose a fire-extinguishing media that is appropriate for the surrounding materials. Do not use full water jet as this may spread the fire.

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

Flammable. Markers can burst violently when heated, due to excess pressure build-up. Fire smoke may contain harmful or irritating gases i.e. carbon oxides.

### 5.3 Advice for firefighters

Firefighters who may be exposed to smoke or thermal decomposition products shall wear all available personal protective equipment and self-contained breathing apparatus. Extinguishing water must not be discharged into drains. Extinguishing water must be disposed of in accordance with local regulations.

## 6. ACCIDENTAL RELEASE MEASURES

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

No special measures are needed for intended handling.

### 6.2 Environmental precautions

Do not allow to enter into sewer, water system or soil.

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

Markers are picked up mechanically / by hand.

### 6.4 Reference to other sections

See also sections 7 (handling), 8 (personal protection) and 13 (waste disposal).

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Provide adequate ventilation. Avoid inhalation of vapours and contact with skin and eyes. Wash your hands after contact with the product. Do not eat, drink or smoke while working.

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

Keep out of the reach of children. Store in a well-ventilated place, protected from heat sources and direct sunlight. Stored separately from food and animal feed.

**7.3 Specific end use(s)**

See section 1.2.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**8.1 Control parameters**

| *Substance* | *Identification* | *Value* | *Notation* |
|---|---|---|---|
| *Xylene* | *CAS No 1330-20-7*<br>*EC No 215-535-7* | *TWA (8h): 50 ppm*<br>*TWA (8h): 220 mg/m³*<br>*STEL (15 min.): 100 ppm*<br>*STEL (15 min.): 441 mg/m³* | *Sk* |
| *Acetone* | *CAS No 67-64-1*<br>*EC No 200-662-2* | *TWA (8h): 500 ppm*<br>*TWA (8h): 1210 mg/m³*<br>*STEL (15 min.): 1500 ppm*<br>*STEL (15 min.): 3620 mg/m³* | |

References (laws/regulations): EH40/2005 Workplace exposure limits, with later amendments.
Explanation of the notations:
Sk = Can be absorbed through the skin.

Xylene:
DNEL Workers, short-term - systemic effects, inhalation: 289 mg/m³
DNEL Workers, short-term - local effects, inhalation: 289 mg/m³
DNEL Workers, long-term - systemic effects, skin contact: 180 mg/kg body weight/day
DNEL Workers, long-term - systemic effects, inhalation: 77 mg/m³
PNEC Fresh water: 0.327 mg/l
PNEC Sea water: 0.327 mg/l
PNEC Intermittent emissions: 0.327 mg/l
PNEC Sewage treatment plant: 6.58 mg/l
PNEC Freshwater sediment related to dry weight: 12.46 mg/kg
PNEC Marine sediment related to dry weight: 12.46 mg/kg
PNEC Soil related to dry weight: 2.31 mg/kg

Acetone:
DNEL Workers, long-term - systemic effects, skin contact: 186 mg/kg body weight/day
DNEL Workers, long-term - systemic effects, inhalation: 1210 mg/m³
DNEL Workers, short-term - local effects, inhalation: 2420 mg/m³
PNEC Fresh water: 10.6 mg/l
PNEC Sea water: 1.06 mg/l
PNEC Intermittent emissions: 21 mg/l
PNEC Sewage treatment plant: 100 mg/l
PNEC Freshwater sediment: 30.4 mg/kg
PNEC Marine sediment: 3.04 mg/kg
PNEC Soil: 29.5 mg/kg

**8.2 Exposure controls**

Provide adequate ventilation. The personal protective equipment must be CE-marked. The protective equipment and the specified standards recommended below are only suggestions, and should be selected on advice from the supplier of such equipment. A risk assessment of the work place/work activities (the actual

risk) may lead to other control measures.

**Eye / face protection**

Normally not necessary.

**Hand and skin protection**

Normally not necessary.
Wear gloves of resistant material, eg. Viton (thickness of glove material 0,4 mm ≥ 480 minutes breakthrough time).

Standards:
EN ISO 374 (Protective gloves against chemicals and micro-organisms).
EN 420 (Protective gloves - General requirements and test methods).

Ordinary workwear.
When handling spilled liquid: Wear rubber apron and rubber footwear.

**Respiratory protection**

Under normal conditions of use respiration protection should not be required.
In case of insufficient ventilation, wear a face mask with gas filter A (organic vapor filter).
Standard:
EN 14387 (Respiratory protective devices. Gas filter(s) and combined filter(s). Requirements, testing, marking).

**Appropriate environmental exposure control**

Do not allow to enter into sewer, water system or soil.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

| | |
|---|---|
| Physical state | Liquid |
| Colour | Black |
| Odour | Aromatic / sweet |
| Odour threshold | 0.7 – 40 ppm (literature data) |
| Melting point | -25 °C (applies to xylene) |
| Boiling point | Not determined |
| Flammability | Flammable liquid and vapor |
| Lower and upper explosion limit | 1-13 % by volume in air (estimated value, literature data) |
| Flash point | > 23 °C |
| Autoignition temperature | Not determined |
| Decomposition temperature | Not determined |
| pH (in delivered state) | Not relevant |
| Kinematic viscosity | Not determined |
| Solubility in water | Insoluble |
| Partition coefficient n- octanol/water | Not relevant for a mixture |
| Vapour pressure (20°C) | Not determined |
| Density (20°C) | < 1 g/ml |
| Relative vapour density | > 1 (reference gas: air = 1) |
| Particle characteristics | Not relevant for a liquid |
| Evaporation rate | Negligible |

### 9.2 Other information

**9.2.1. Information with regard to physical hazard classes**

Explosive properties Not explosive
Oxidizing properties Non-oxidizing

**9.2.2 Other safety characteristics**
No information.

## 10 STABILITY AND REACTIVITY

**10.1 Reactivity**
No test data available.

**10.2 Chemical stability**
Stable under normal temperature conditions and recommended use.

**10.3 Possibility of hazardous reactions**
None under normal conditions.

**10.4 Conditions to avoid**
Avoid heat, flames and other sources of ignition.

**10.5. Incompatible materials**
None special.

**10.6. Hazardous decomposition products**
None under normal conditions. See also section 5.2 (combustion products).

## 11. TOXICOLOGICAL INFORMATION

**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
*ortho-Xylene: LC50 (inhalation, rat, 4h): < 19 mg/l. Poisoning by inhalation: LC50 15.7 mg/l (6h)*
*meta-Xylene: LC50 (inhalation, rat, 4h): <29 mg/l*
*para-Xylene: LC50 (inhalation, rat, 4h): 20 mg/l*

*The test data available for ortho-, meta- and para-xylene do not support the substances' classification with Acute Tox. 4 through ingestion or skin contact.*

*ATE mixture (oral): > 2000 mg/kg. ATE mixture (dermal): > 2000 mg/kg*

**Acute toxicity**
Harmful in contact with skin or if inhaled.

**Skin corrosion /skin irritation**
Causes skin irritation.

**Serious eye damage or eye irritation**
Causes serious eye irritation.

**Respiratory or skin sensitization**
Based on available data, the classification criteria are not met.

**Germ cell mutagenicity**
Suspected of causing genetic defects (positive test result in laboratory tests).

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

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

**Specific target organ toxicity – single exposure**

May cause respiratory irritation.

**Specific target organ toxicity – repeated exposure**

May cause damage to organs (the central nervous system) through prolonged or repeated exposure.

**Aspiration hazard**

May be fatal if swallowed and enters airways. However, ingestion is unlikely due to the shape of the product (there is no free liquid in the marker).

**Information on likely routes of exposure**

Exposure can occur via skin contact or inhalation.

**Symptoms related to the physical, chemical and toxicological characteristics**

Inhalation can irritate the airways and cause headache, dizziness, nausea and has a sedating effect.
Skin contact degreases the skin and causes itching and redness. Exposure to a large skin surface can produce similar symptoms as from inhalation.
The vapors can cause itching, redness and tearing in the eyes.

**11.2. Information on other hazards**

*Endocrine disrupting properties*: The chemical does not contain any known or suspected endocrine disruptors to human. *Other information:* No data.

## 12. ECOLOGICAL INFORMATION

**12.1 Ecotoxicity**

The mixture is not classified as harmful to the environment.

**12.2 Persistence and degradability**

Xylene and acetone are readily biodegradable.

**12.3 Bioaccumulative potential**

Xylene and acetone do not bioaccumulate.

**12.4 Mobility in soil**

The product contains organic solvents which will evaporate easily from all surfaces.

**12.5 Results of PBT-/vPvB assessment**

The chemical contains no PBT or vPvB substances.

**12.6. Endocrine disrupting properties**

The chemical does not contain any known or suspected endocrine disruptors for the environment.

**12.7. Other adverse effects**

None known.

## 13. DISPOSAL CONSIDERATIONS

**13.1 Waste treatment methods**

Do not empty into drains. Dispose of residues / unused markers as hazardous waste.
Waste code (EWC):
080111 waste paint and varnish containing organic solvents or other dangerous substances
The waste code is intented as a guide. The code must be chosen by the user, if the use differs from the one mentioned above.
Used /dry / empty markers are not hazardous waste.

## 14. TRANSPORT INFORMATION

| | | |
|---|---|---|
| 14.1 | UN Number or ID number | 3175 |
| 14.2 | UN proper shipping name | SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (xylene and acetone) |
| 14.3 | Transport hazard class | 4.1 |
| 14.4 | Packing group | II |
| 14.5 | Marine pollutant | No |
| 14.6 | Special precautions for user | Fp > 23 °C < 60 °C c.c. (IMDG)<br>With a maximum net quantity of 1 kg, the goods can be sent in limited quantities, LQ.<br>MEDIUM markers contain < 10 ml of flammable liquid absorbed in a solid substance and are not covered by the provisions of ADR.<br>GIGANT markers contain approx. 15 ml of flammable liquid absorbed in a solid substance. |
| 14.7 | Maritime transport in bulk according to IMO instruments | Not relevant |

## 15. REGULATORY INFORMATION

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

Regulation (EC) No 1907/2006 on the registration, evaluation, authorization and restriction of chemicals (REACH Regulation), with later amendments.
Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP-regulation) with later amendments.
European Waste Catalogue and Hazardous Waste List.
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009.

**Restrictions of the mixture according to Annex XVII to Reach:**

None.

**15.2 Chemical safety assessment**

Not required for mixtures.

## 16. OTHER INFORMATION

The information contained in this SDS must be made available to all those who handle the product.

**Explanation of hazard classes used in section 3.2**

| | |
|---|---|
| Acute Tox.4 | - Acute toxicity, category 4 |
| Asp. Tox. 1 | - Aspiration hazard, category 1 |
| Eye Irrit. 2 | - Serious eye damage/eye irritation, category 2 |
| Flam. Liq. 2 | - Flammable liquids, category 2 |
| Flam. Liq. 3 | - Flammable liquids, category 3 |
| Muta. 2 | - Germ cell mutagenicity, category 2 |
| Skin Irrit. 2 | - Skin corrosion/irritation, category 2 |
| STOT RE 2 | - Specific target organ toxicity — repeated exposure, category 2 |
| STOT SE 3 | - Specific target organ toxicity — single exposure, category 3 |

**Explanation of hazard statements used in section 3.2**

| | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H335 | May cause respiratory irritation. |

| | |
|---|---|
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H341 | Suspected of causing genetic defects. |
| H373 | May cause damage to organs through prolonged or repeated exposure |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

**Abbreviations and acronyms used**

ATE: Acute Toxicity Estimate
DNEL: Derived no effect level
EWC: European Waste Code (a code from the EU's common classification system for waste)
LC50: Lethal concentration of a substance which causes the death of 50% of test animals
LD50: Lethal dose, is the amount of a substance given to a group of test animals, which causes the death of 50%.
Log Pow: The partition coefficient n-octanol-water
PBT: Persistent, Bioaccumulative and Toxic
PNEC: Predicted no effect concentration
vPvB: very Persistent and very Bioaccumulative

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