

MATERIAL SAFETY DATA SHEET

PRODUCT RG-PRM-BK **PERMANENT RETRACTABLE MARKER**

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION



1.1. Product identifier: RG-PRM Detectable Retractable Marker, Permanent Marker

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

Uses: Marking ink for use in writing instruments

Not to be used for: -

1.3. Details of the samples of the Safety Data Sheet

Company name: Retreeva Global
 Address: Retreeva Global Distribution Centre,
 Farthing Road,
 Ipswich
 IP1 5AP, UK
 Telephone number: +44 (01) 473 467 837
 Email address: detect@retreevaglobal.com
 Website: www.retreevaglobal.com

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008:

Flammable liquids (Category 2) H225

Eye irritation (Category 2A) H319

Specific target organ toxicity, single exposure; Respiratory tract irritation (Category 3), H335, H336

For the Full text of the H-Statements mentioned in the Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

F	Highly flammable	R11
Xi	Irritant	R36
		R67

For the Full text of the H-Statements mentioned in the Section, see Section 16.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008



Hazard symbols:

Signal word: Danger.

Hazard statements: H225 - Highly flammable liquid and vapour.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

H336 - May cause drowsiness or dizziness

Precautionary

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statements
prevention:

P210 - Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting/.../equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash...thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P280 - Wash...thoroughly after handling
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P337 + P313 - If eye irritation persists: Get medical advice/attention.
P370 + P378 - In case of fire: Use ... for extinction.
P403 + P235 - Store in a well-ventilated place. Keep cool.
P404 + P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container to ...

Supplemental
Hazard
Statements:

n/a

Labelling according to European Directive 67/548/EEC as amended.

Hazard symbol(s):



R-phrases:

R11 - Highly flammable.
R36 - Irritating to eyes.
R67 - Vapours may cause drowsiness and dizziness.

S-phrases:

S2 - Keep out of the reach of children.
S7 - Keep container tightly closed.
S7/8 - Keep container tightly closed and dry.
S16 - Keep away from sources of ignition - No smoking.
S24/25 - Avoid contact with skin and eyes.
S27/28 - After contact with skin, take off immediately all contaminated clothing, and wash immediately.

2.3. Other hazards

None

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ethanol

CAS No.: 64-17-5
EC No.: 200-578-6
Content (%): 32.0 - 37.0

1-METHOXY-2-PROPANOL

CAS No.: 107-98-2

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EC No.:	203-539-1
Content (%):	40.0 - 45.0
SOLVENT BLACK 27	
CAS No.:	12237-22-8
EC No.:	257-804-1
Content (%):	8.0 - 12.0
MALEIC RESIN	
CAS No.:	65997-04-8
EC No.:	266-040-8
Content (%):	10.0 - 15.0

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

General advice:	Consult a physician. Show this safety data sheet to the doctor in attendance.
In case of inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact:	Wash off with soap and plenty of water. Consult a physician.
In case of eye contact:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3. Indication of immediate medical attention and special treatment needed

No data available

SECTION 5. FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

No data available.

5.3. Advice for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4. Further information

Use water spray to cool unopened containers.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

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6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4. Reference to other sections

For disposal see section 13.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition – No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Hygroscopic.

7.3. Specific end use(s)

A part from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with workplace control parameters.

8.2. Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personnel Protection measures

Eye/face protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection: Impervious clothing, flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.3. Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Blue Liquid
Odour	No data available
Odour threshold	No data available
pH	3.0 - 5.5 at 25.0 °C
Melting point/ Freezing point:	-144.0 °C
Initial boiling point and range:	78.0 - 82.0 °C
Flash point	14.0 °C - closed cup
Evaporation rate	No data available
Flammability	No data available
Upper/lower flammability or explosive limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Relative density:	No data available
Water Solubility:	No data available
Partition coefficient n-octanol/water:	No data available
Auto-ignition temperature:	425.0 °C
Decomposition Temperature:	No data available
Viscosity	5.0 - 7.0cps at 25.0 °C
Explosive properties	No data available
Oxidising properties	No data available
Surface tension	≥ 23 mN/m at 25.0 °C
Specific gravity	0.80 – 1.00 at 25.0 °C

9.2. Other information

No further information available.

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

No data available

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5. Incompatible materials

Alkali metals, Ammonia, Oxidizing agents, Peroxides

10.6. Hazardous decomposition products

Other decomposition products - no data available

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In the event of fire: see section 5

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity: 64-17-5 LD50 Oral - rat - 7060 mg/kg Remarks: Lungs, Thorax, or Respiration: Other changes. LC50 Inhalation - rat - 10 h - 20000 ppm
67-63-0 LD50 Oral - rat - 5045 mg/kg Remarks: Behavioural: Altered sleep time (including change in righting reflex). Behavioural: Somnolence (general depressed activity). LC50 Inhalation - rat - 8 h - 16000 ppm LD50 Dermal - rabbit - 12800 mg/kg

Skin corrosion/irritation: No data available

Serious eye damage/eye irritation: 67-63-0 Eyes - rabbit Result: Mild eye irritation - 24 h (Draize Test)

Respiratory or skin Sensitisation: No data available

Germ cell mutagenicity: No data available

Carcinogenicity: No data available

Reproductive toxicity: No data available

Specific target organ toxicity - single exposure: May cause drowsiness or dizziness

Specific target organ toxicity – repeated exposure: No data available

Aspiration hazard: No data available

Additional Information: RTECS: KQ6300000 Central nervous system depression, narcosis, Damage to the heart., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Heart - Irregularities - Based on Human Evidence

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

No data available

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6. Other adverse effects

No data available

SECTION 13. DISPOSAL INFORMATION

13.1. Waste treatment methods

Product: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

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Contaminated packaging: Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

14.1. UN number

ADR/RID: 1993
IMDG: 1993
IATA: 1993

14.2. UN proper shipping name

ADR/RID: ORIMAC BLACK (Flammable Liquid, N. O. S)
IMDG: ORIMAC BLACK (Flammable Liquid, N. O. S)
IATA: ORIMAC BLACK (Flammable Liquid, N. O. S)

14.3. Transport hazard class(es)

ADR/RID: 3
IMDG: 3
IATA: 3

14.4. Packaging group

ADR/RID: II
IMDG: II
IATA: II

14.5. Environmental hazards

ADR/RID: No
IMDG Marine pollutant: No
IATA: No

14.6. Special precautions for user

No data available

SECTION 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006 and Regulation (EC) 1272/2008.

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

No data available.

15.2. Chemical safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16. OTHER INFORMATION

Full text of H-Statements referred to under Sections 2 and 3:

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Full text of R-phrases referred to under sections 2 and 3:

R11 Highly flammable.
R36 Irritating to eyes.
R67 Vapours may cause drowsiness and dizziness.

Further information:

EC Directive 67/548/EC resp. 99/45/EC as amended in each case.
Regulation (EC) No 1907/2006 (REACH) as amended in each case.
EC Directives 2000/39/EC, 2006/15/EC as amended in each case.

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National Threshold Limit Values of the corresponding countries as amended in each case.
Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.
Institute for Health and Consumer Protection (IHCP).
European Chemicals Agency (ECHA). ChemIDplus Lite.
Chemicals Information System (NCIS). U.S. Environmental Protection Agency.
United States National Library of Medicine (NLM).
International Agency for Research on Cancer (IARC).
Incorporated Administrative Agency National Institute of Technology and Evaluation. (NITE).
Raw material company's MSDS

This document was prepared on behalf of Retreeva Global and the information included is to the best of our knowledge correct at the time of writing. Retreeva Global offers the information within this document as a guide only, they do not represent any guarantee or warrantee of the prescribed products in the sense of the legal guarantee regulations. It is the responsibility of the end user to ensure the items purchased are suitable for the intended application.

Sheena Britton
Technical Compliance Manager
Retreeva-Global
10/12/22

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MATERIAL SAFETY DATA SHEET

PRODUCT RG-PRM-BL **PERMANENT RETRACTABLE MARKER**

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION



1.1. Product identifier: RG-PRM Detectable Retractable Marker, Permanent Marker

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

Uses: Marking ink for use in writing instruments

Not to be used for: -

1.3. Details of the samples of the Safety Data Sheet

Company name: Retreeva Global
 Address: Retreeva Global Distribution Centre,
 Farthing Road,
 Ipswich
 IP1 5AP, UK
 Telephone number: +44 (01) 473 467 837
 Email address: detect@retreevaglobal.com
 Website: www.retreevaglobal.com

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008:

Flammable liquids (Category 2) H225

Eye irritation (Category 2A) H319

Specific target organ toxicity, single exposure; Respiratory tract irritation (Category 3), H335, H336

For the Full text of the H-Statements mentioned in the Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

F	Highly flammable	R11
Xi	Irritant	R36
		R67

For the Full text of the H-Statements mentioned in the Section, see Section 16.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008



Hazard symbols:

Signal word: Danger.

Hazard statements: H225 - Highly flammable liquid and vapour.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

H336 - May cause drowsiness or dizziness

Precautionary

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statements

prevention:

P210 - Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting/.../equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash...thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P280 - Wash...thoroughly after handling
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P337 + P313 - If eye irritation persists: Get medical advice/attention.
P370 + P378 - In case of fire: Use ... for extinction.
P403 + P235 - Store in a well-ventilated place. Keep cool.
P404 + P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container to ...

Supplemental

Hazard

Statements:

n/a

Labelling according to European Directive 67/548/EEC as amended.

Hazard symbol(s):



R-phrases:

R11 - Highly flammable.
R36 - Irritating to eyes.
R67 - Vapours may cause drowsiness and dizziness.

S-phrases:

S2 - Keep out of the reach of children.
S7 - Keep container tightly closed.
S7/8 - Keep container tightly closed and dry.
S16 - Keep away from sources of ignition - No smoking.
S24/25 - Avoid contact with skin and eyes.
S27/28 - After contact with skin, take off immediately all contaminated clothing, and wash immediately.

2.3. Other hazards

None

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ethanol

CAS No.: 64-17-5
EC No.: 200-578-6
Content (%): 35.0 - 40.0

1-METHOXY-2-PROPANOL

CAS No.: 107-98-2

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EC No.:	203-539-1
Content (%):	45.0 - 50.0
BASIC BLUE 7	
CAS No.:	2390-60-5
EC No.:	219-232-0
Content (%):	1.0 - 3.0
SOLVENT BLUE 70	
CAS No.:	12237-24-0
EC No.:	602-674-7
Content (%):	2.0 - 4.0
MALEIC RESIN	
CAS No.:	65997-04-8
EC No.:	266-040-8
Content (%):	8.0 - 12.0

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

General advice:	Consult a physician. Show this safety data sheet to the doctor in attendance.
In case of inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact:	Wash off with soap and plenty of water. Consult a physician.
In case of eye contact:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3. Indication of immediate medical attention and special treatment needed

No data available

SECTION 5. FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

No data available.

5.3. Advice for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4. Further information

Use water spray to cool unopened containers.

SECTION 6. ACCIDENTAL RELEASE MEASURES

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6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4. Reference to other sections

For disposal see section 13.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition – No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Hygroscopic.

7.3. Specific end use(s)

A part from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with workplace control parameters.

8.2. Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personnel Protection measures

Eye/face protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection: Impervious clothing, flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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8.3. Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Blue Liquid
Odour	No data available
Odour threshold	No data available
pH	3.0 - 5.0 at 25.0 °C
Melting point/ Freezing point	-144.0 °C
Initial boiling point and range:	78.0 - 82.0 °C
Flash point	14.0 °C - closed cup
Evaporation rate	No data available
Flammability	No data available
Upper/lower flammability or explosive limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Relative density:	No data available
Water Solubility:	No data available
Partition coefficient n-octanol/water:	No data available
Auto-ignition temperature:	425.0 °C
Decomposition Temperature:	No data available
Viscosity	2.0 - 4.0cps at 25.0 °C
Explosive properties	No data available
Oxidising properties	No data available
Surface tension	≥ 23 mN/m at 25.0 °C
Specific gravity	0.80 – 1.00 at 25.0 °C

9.2. Other information

No further information available.

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

No data available

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5. Incompatible materials

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Alkali metals, Ammonia, Oxidizing agents, Peroxides

10.6. Hazardous decomposition products

Other decomposition products - no data available

In the event of fire: see section 5

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity: 64-17-5 LD50 Oral - rat - 7060 mg/kg Remarks: Lungs, Thorax, or Respiration: Other changes.
LC50 Inhalation - rat - 10 h - 20000 ppm
67-63-0 LD50 Oral - rat - 5045 mg/kg Remarks: Behavioural: Altered sleep time (including change in righting reflex). Behavioural: Somnolence (general depressed activity). LC50
Inhalation - rat - 8 h - 16000 ppm LD50 Dermal - rabbit - 12800 mg/kg

Skin corrosion/irritation: No data available

Serious eye damage/eye irritation: 67-63-0 Eyes - rabbit Result: Mild eye irritation - 24 h (Draize Test)

Respiratory or skin Sensitisation: No data available

Germ cell mutagenicity: No data available

Carcinogenicity: No data available

Reproductive toxicity: No data available

Specific target organ toxicity - single exposure: May cause drowsiness or dizziness

Specific target organ toxicity – repeated exposure: No data available

Aspiration hazard: No data available

Additional Information: RTECS: KQ6300000 Central nervous system depression, narcosis, Damage to the heart., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Heart - Irregularities - Based on Human Evidence

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

No data available

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6. Other adverse effects

No data available

SECTION 13. DISPOSAL INFORMATION

13.1. Waste treatment methods

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Product: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging: Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

14.1. UN number

ADR/RID: 1993
IMDG: 1993
IATA: 1993

14.2. UN proper shipping name

ADR/RID: ORIMAC BLUE (Flammable Liquid, N. O. S)
IMDG: ORIMAC BLUE (Flammable Liquid, N. O. S)
IATA: ORIMAC BLUE (Flammable Liquid, N. O. S)

14.3. Transport hazard class(es)

ADR/RID: 3
IMDG: 3
IATA: 3

14.4. Packaging group

ADR/RID: II
IMDG: II
IATA: II

14.5. Environmental hazards

ADR/RID: No
IMDG Marine pollutant: No
IATA: No

14.6. Special precautions for user

No data available

SECTION 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006 and Regulation (EC) 1272/2008.

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

No data available.

15.2. Chemical safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16. OTHER INFORMATION

Full text of H-Statements referred to under Sections 2 and 3:

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Full text of R-phrases referred to under sections 2 and 3:

R11 Highly flammable.
R36 Irritating to eyes.
R67 Vapours may cause drowsiness and dizziness.

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Further information:

EC Directive 67/548/EC resp. 99/45/EC as amended in each case.
Regulation (EC) No 1907/2006 (REACH) as amended in each case.
EC Directives 2000/39/EC, 2006/15/EC as amended in each case.
National Threshold Limit Values of the corresponding countries as amended in each case.
Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.
Institute for Health and Consumer Protection (IHCP).
European Chemicals Agency (ECHA). ChemIDplus Lite.
Chemicals Information System (NCIS). U.S. Environmental Protection Agency.
United States National Library of Medicine (NLM).
International Agency for Research on Cancer (IARC).
Incorporated Administrative Agency National Institute of Technology and Evaluation. (NITE).
Raw material company's MSDS

This document was prepared on behalf of Retreeva Global and the information included is to the best of our knowledge correct at the time of writing. Retreeva Global offers the information within this document as a guide only, they do not represent any guarantee or warrantee of the prescribed products in the sense of the legal guarantee regulations. It is the responsibility of the end user to ensure the items purchased are suitable for the intended application.

Sheena Britton
Technical Compliance Manager
Retreeva-Global
08/10/22

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MATERIAL SAFETY DATA SHEET

PRODUCT RG-PRM-GN PERMANENT RETRACTABLE MARKER

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION



1.1. Product identifier: RG-PRM Detectable Retractable Marker, Permanent Marker

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

Uses: Marking ink for use in writing instruments

Not to be used for: -

1.3. Details of the samples of the Safety Data Sheet

Company name: Retreeva Global
 Address: Retreeva Global Distribution Centre,
 Farthing Road,
 Ipswich
 IP1 5AP, UK
 Telephone number: +44 (01) 473 467 837
 Email address: detect@retreevaglobal.com
 Website: www.retreevaglobal.com

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008:

Flammable liquids (Category 2) H225

Eye irritation (Category 2A) H319

Specific target organ toxicity, single exposure; Respiratory tract irritation (Category 3), H335, H336

For the Full text of the H-Statements mentioned in the Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

F	Highly flammable	R11
Xi	Irritant	R36
		R67

For the Full text of the R-pharse(s) mentioned in the Section, see Section 16.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008



Hazard symbols:

Signal word: Danger.

Hazard statements: H225 - Highly flammable liquid and vapour.
 H319 - Causes serious eye irritation.
 H335 - May cause respiratory irritation.
 H336 - May cause drowsiness or dizziness

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Precautionary
statements
prevention:

P210 - Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting/.../equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash... thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wash... thoroughly after handling
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P337 + P313 - If eye irritation persists: Get medical advice/attention.
P370 + P378 - In case of fire: Use ... for extinction.
P403 + P235 - Store in a well-ventilated place. Keep cool.
P404 + P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container to ...

Supplemental
Hazard
Statements:

n/a

Labelling according to European Directive 67/548/EEC as amended.

Hazard symbol(s):



R-phrases:

R11 - Highly flammable.
R36 - Irritating to eyes.
R67 - Vapours may cause drowsiness and dizziness.

S-phrases:

S2 - Keep out of the reach of children.
S7 - Keep container tightly closed.
S7/8 - Keep container tightly closed and dry.
S16 - Keep away from sources of ignition - No smoking.
S24/25 - Avoid contact with skin and eyes.
S27/28 - After contact with skin, take off immediately all contaminated clothing, and wash immediately.

2.3. Other hazards

None

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ethanol

CAS No.: 64-17-5
EC No.: 200-578-6
Content (%): 35.0 - 40.0

1-METHOXY-2-PROPANOL

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CAS No.: 107-98-2
EC No.: 203-539-1
Content (%): 45.0 - 50.0

BASIC YELLOW 51

CAS No.: 83949-75-1
EC No.: 281-435-5
Content (%): 0.1 - 1.0

SOLVENT BLUE 70

CAS No.: 12237-24-0
EC No.: 602-674-7
Content (%): 3.0 - 6.0

MALEIC RESIN

CAS No.: 65997-04-8
EC No.: 266-040-8
Content (%): 10.0 - 13.0

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.
In case of inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact: Wash off with soap and plenty of water. Consult a physician.
In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3. Indication of immediate medical attention and special treatment needed

No data available

SECTION 5. FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

No data available.

5.3. Advice for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4. Further information

Use water spray to cool unopened containers.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4. Reference to other sections

For disposal see section 13.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition – No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Hygroscopic.

7.3. Specific end use(s)

A part from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with workplace control parameters.

8.2. Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personnel Protection measures

Eye/face protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection: Impervious clothing, flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory

protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and

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approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.3. Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Green Liquid
Odour	No data available
Odour threshold	No data available
pH	2.0 - 5.0 at 25.0 °C
Melting point/ Freezing point:	-144.0 °C
Initial boiling point and range:	78.0 - 82.0 °C
Flash point	14.0 °C - closed cup
Evaporation rate	No data available
Flammability	No data available
Upper/lower flammability or explosive limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Relative density:	No data available
Water Solubility:	No data available
Partition coefficient n-octanol/water:	No data available
Auto-ignition temperature:	425.0 °C
Decomposition Temperature:	No data available
Viscosity	2.0 – 4.0cps at 25.0 °C
Explosive properties	No data available
Oxidising properties	No data available
Surface tension	≥ 23 mN/m at 25.0 °C
Specific gravity	0.80 – 1.00 at 25.0 °C

9.2. Other information

No further information available.

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

No data available

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

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10.5. Incompatible materials

Alkali metals, Ammonia, Oxidizing agents, Peroxides

10.6. Hazardous decomposition products

Other decomposition products - no data available

In the event of fire: see section 5

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity: 64-17-5 LD50 Oral - rat - 7060 mg/kg Remarks: Lungs, Thorax, or Respiration: Other changes.
LC50 Inhalation - rat - 10 h - 20000 ppm
67-63-0 LD50 Oral - rat - 5045 mg/kg Remarks: Behavioural: Altered sleep time (including change in righting reflex). Behavioural: Somnolence (general depressed activity). LC50
Inhalation - rat - 8 h - 16000 ppm LD50 Dermal - rabbit - 12800 mg/kg

Skin corrosion/irritation: No data available

Serious eye damage/eye irritation: 67-63-0 Eyes - rabbit Result: Mild eye irritation - 24 h (Draize Test)

Respiratory or skin Sensitisation: No data available

Germ cell mutagenicity: No data available

Carcinogenicity: No data available

Reproductive toxicity: No data available

Specific target organ toxicity - single exposure: May cause drowsiness or dizziness

Specific target organ toxicity – repeated exposure: No data available

Aspiration hazard: No data available

Additional Information: RTECS: KQ6300000 Central nervous system depression, narcosis, Damage to the heart., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Heart - Irregularities - Based on Human Evidence

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

No data available

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6. Other adverse effects

No data available

SECTION 13. DISPOSAL INFORMATION

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13.1. Waste treatment methods

Product: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging: Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

14.1. UN number

ADR/RID: 1993
IMDG: 1993
IATA: 1993

14.2. UN proper shipping name

ADR/RID: ORIMAC GREEN (Flammable Liquid, N. O. S)
IMDG: ORIMAC GREEN (Flammable Liquid, N. O. S)
IATA: ORIMAC GREEN (Flammable Liquid, N. O. S)

14.3. Transport hazard class(es)

ADR/RID: 3
IMDG: 3
IATA: 3

14.4. Packaging group

ADR/RID: II
IMDG: II
IATA: II

14.5. Environmental hazards

ADR/RID: No
IMDG Marine pollutant: No
IATA: No

14.6. Special precautions for user

No data available

SECTION 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006 and Regulation (EC) 1272/2008.

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

No data available.

15.2. Chemical safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16. OTHER INFORMATION

Full text of H-Statements referred to under Sections 2 and 3:

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Full text of R-phrases referred to under sections 2 and 3:

R11 Highly flammable.

R36 Irritating to eyes.

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R67 Vapours may cause drowsiness and dizziness.

Further information:

EC Directive 67/548/EC resp. 99/45/EC as amended in each case.
Regulation (EC) No 1907/2006 (REACH) as amended in each case.
EC Directives 2000/39/EC, 2006/15/EC as amended in each case.
National Threshold Limit Values of the corresponding countries as amended in each case.
Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.
Institute for Health and Consumer Protection (IHCP).
European Chemicals Agency (ECHA). ChemIDplus Lite.
Chemicals Information System (NCIS). U.S. Environmental Protection Agency.
United States National Library of Medicine (NLM).
International Agency for Research on Cancer (IARC).
Incorporated Administrative Agency National Institute of Technology and Evaluation. (NITE).
Raw material company's MSDS

This document was prepared on behalf of Retreeva Global and the information included is to the best of our knowledge correct at the time of writing. Retreeva Global offers the information within this document as a guide only, they do not represent any guarantee or warrantee of the prescribed products in the sense of the legal guarantee regulations. It is the responsibility of the end user to ensure the items purchased are suitable for the intended application.

Sheena Britton
Technical Compliance Manager
Retreeva-Global
16/04/08

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MATERIAL SAFETY DATA SHEET

PRODUCT RG-PRM-RD **PERMANENT RETRACTABLE MARKER**

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION



1.1. Product identifier: RG-PRM Detectable Retractable Marker, Permanent Marker

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

Uses: Marking ink for use in writing instruments

Not to be used for: -

1.3. Details of the samples of the Safety Data Sheet

Company name: Retreeva Global
 Address: Retreeva Global Distribution Centre,
 Farthing Road,
 Ipswich
 IP1 5AP, UK
 Telephone number: +44 (01) 473 467 837
 Email address: detect@retreevaglobal.com
 Website: www.retreevaglobal.com

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008:

Flammable liquids (Category 2) H225

Eye irritation (Category 2A) H319

Specific target organ toxicity, single exposure; Respiratory tract irritation (Category 3), H335, H336

For the Full text of the H-Statements mentioned in the Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

F	Highly flammable	R11
Xi	Irritant	R36
		R67

For the Full text of the H-Statements mentioned in the Section, see Section 16.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008



Hazard symbols:

Signal word: Danger.

Hazard statements: H225 - Highly flammable liquid and vapour.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

H336 - May cause drowsiness or dizziness

Precautionary

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statements

prevention:

P210 - Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting/.../equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash... thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wash... thoroughly after handling
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P337 + P313 - If eye irritation persists: Get medical advice/attention.
P370 + P378 - In case of fire: Use ... for extinction.
P403 + P235 - Store in a well-ventilated place. Keep cool.
P404 + P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container to ...

Supplemental

Hazard

Statements:

n/a

Labelling according to European Directive 67/548/EEC as amended.

Hazard symbol(s):



R-phrases:

R11 - Highly flammable.
R36 - Irritating to eyes.
R67 - Vapours may cause drowsiness and dizziness.

S-phrases:

S2 - Keep out of the reach of children.
S7 - Keep container tightly closed.
S7/8 - Keep container tightly closed and dry.
S16 - Keep away from sources of ignition - No smoking.
S24/25 - Avoid contact with skin and eyes.
S27/28 - After contact with skin, take off immediately all contaminated clothing, and wash immediately.

2.3. Other hazards

None

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ethanol

CAS No.: 64-17-5
EC No.: 200-578-6
Content (%): 45.0 - 50.0

1-METHOXY-2-PROPANOL

CAS No.: 107-98-2

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EC No.:	203-539-1
Content (%):	30.0 - 45.0
BASIC RED 1	
CAS No.:	989-38-8
EC No.:	213-584-9
Content (%):	4.0 - 9.0
PHENOLIC RESIN	
CAS No.:	54579-44-1
EC No.:	611-169-0
Content (%):	12.0 - 15.0

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

General advice:	Consult a physician. Show this safety data sheet to the doctor in attendance.
In case of inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact:	Wash off with soap and plenty of water. Consult a physician.
In case of eye contact:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3. Indication of immediate medical attention and special treatment needed

No data available

SECTION 5. FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

No data available.

5.3. Advice for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4. Further information

Use water spray to cool unopened containers.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

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6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4. Reference to other sections

For disposal see section 13.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition – No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Hygroscopic.

7.3. Specific end use(s)

A part from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with workplace control parameters.

8.2. Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personnel Protection measures

Eye/face protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection: Impervious clothing, flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.3. Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Blue Liquid
Odour	No data available
Odour threshold	No data available
pH	3.0 - 5.5 at 25.0 °C
Melting point/ Freezing point:	-144.0 °C
Initial boiling point and range:	78.0 - 82.0 °C
Flash point	14.0 °C - closed cup
Evaporation rate	No data available
Flammability	No data available
Upper/lower flammability or explosive limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Relative density:	No data available
Water Solubility:	No data available
Partition coefficient n-octanol/water:	No data available
Auto-ignition temperature:	425.0 °C
Decomposition Temperature:	No data available
Viscosity	2.5 – 4.5cps at 25.0 °C
Explosive properties	No data available
Oxidising properties	No data available
Surface tension	≥ 23 mN/m at 25.0 °C
Specific gravity	0.80 – 1.00 at 25.0 °C

9.2. Other information

No further information available.

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

No data available

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5. Incompatible materials

Alkali metals, Ammonia, Oxidizing agents, Peroxides

10.6. Hazardous decomposition products

Other decomposition products - no data available

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In the event of fire: see section 5

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity: 64-17-5 LD50 Oral - rat - 7060 mg/kg Remarks: Lungs, Thorax, or Respiration: Other changes. LC50 Inhalation - rat - 10 h - 20000 ppm
67-63-0 LD50 Oral - rat - 5045 mg/kg Remarks: Behavioural: Altered sleep time (including change in righting reflex). Behavioural: Somnolence (general depressed activity). LC50 Inhalation - rat - 8 h - 16000 ppm LD50 Dermal - rabbit - 12800 mg/kg

Skin corrosion/irritation: No data available

Serious eye damage/eye irritation: 67-63-0 Eyes - rabbit Result: Mild eye irritation - 24 h (Draize Test)

Respiratory or skin Sensitisation: No data available

Germ cell mutagenicity: No data available

Carcinogenicity: No data available

Reproductive toxicity: No data available

Specific target organ toxicity - single exposure: May cause drowsiness or dizziness

Specific target organ toxicity – repeated exposure: No data available

Aspiration hazard: No data available

Additional Information: RTECS: KQ6300000 Central nervous system depression, narcosis, Damage to the heart., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Heart - Irregularities - Based on Human Evidence

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

No data available

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6. Other adverse effects

No data available

SECTION 13. DISPOSAL INFORMATION

13.1. Waste treatment methods

Product: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

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Contaminated packaging: Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

14.1. UN number

ADR/RID: 1993
IMDG: 1993
IATA: 1993

14.2. UN proper shipping name

ADR/RID: ORIMAC RED (Flammable Liquid, N. O. S)
IMDG: ORIMAC RED (Flammable Liquid, N. O. S)
IATA: ORIMAC RED (Flammable Liquid, N. O. S)

14.3. Transport hazard class(es)

ADR/RID: 3
IMDG: 3
IATA: 3

14.4. Packaging group

ADR/RID: II
IMDG: II
IATA: II

14.5. Environmental hazards

ADR/RID: No
IMDG Marine pollutant: No
IATA: No

14.6. Special precautions for user

No data available

SECTION 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006 and Regulation (EC) 1272/2008.

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

No data available.

15.2. Chemical safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16. OTHER INFORMATION

Full text of H-Statements referred to under Sections 2 and 3:

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Full text of R-phrases referred to under sections 2 and 3:

R11 Highly flammable.
R36 Irritating to eyes.
R67 Vapours may cause drowsiness and dizziness.

Further information:

EC Directive 67/548/EC resp. 99/45/EC as amended in each case.
Regulation (EC) No 1907/2006 (REACH) as amended in each case.
EC Directives 2000/39/EC, 2006/15/EC as amended in each case.

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National Threshold Limit Values of the corresponding countries as amended in each case.
Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.
Institute for Health and Consumer Protection (IHCP).
European Chemicals Agency (ECHA). ChemIDplus Lite.
Chemicals Information System (NCIS). U.S. Environmental Protection Agency.
United States National Library of Medicine (NLM).
International Agency for Research on Cancer (IARC).
Incorporated Administrative Agency National Institute of Technology and Evaluation. (NITE).
Raw material company's MSDS

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Retreeva-Global
10/12/22

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