

Substance / Mixture: Mixture

| Main Ingredients | Content(%) | CAS No. | EC No. | EU Reg.No. | Classification EC No. 1272/2008 | Classification 67/548/EEC |
|----------------------------------|------------|------------|-----------|------------|--------------------------------------|---------------------------|
| bis(2-ethoxyethyl)ether | 70-80 | 112-36-7 | 203-963-7 | NA | Eye Irrit 2, H319 | Xi , R36 |
| γ-butyrolactone | <10 | 96-48-0 | 202-509-5 | NA | Acute Tox 4, H302; Eye Irrit 2, H319 | Xn, R22,R36 |
| (2-methoxymethyl ethoxy)propanol | <10 | 34590-94-8 | 252-104-2 | NA | None | None |

Other components (listed on EINECS, NLP or ELINCS) are not hazardous according to the directives mentioned above.

NA: not available

4. First aid measures

4.1 Description of first aid measures

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| Inhalation : | Move to fresh air area. Call a physician |
| Skin Contact : | In case of contact, immediately wash skin with soap and plenty of water. If irritation develops, get medical attention. Remove contaminated clothing and shoes. |
| Eye Contact : | In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If irritation develops, get medical attention. |
| Ingestion : | If swallowed, seek medical advice immediately. |

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

See Section 4.1.

5. Firefighting measures

5.1 Extinguishing media

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| Suitable extinguishing media: | Use water spray, carbon dioxide, dry chemical powder or foam. |
| Unsuitable Extinguishing Media | None. |

5.2 Special hazards arising from the substance or mixture

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| Specific Hazards | Irritant, corrosive and/or toxic gas may be generated by a fire. |
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5.3 Advice for firefighters

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| Specific Fire Fighting | Carry out fire-fighting at the safe and effective distance from the fire, or use a unattended hose-holding unit, or a nozzle with a monitor. |
| Protection of Fire Fighters | In fire-extinguishing activity, wear an appropriate air breathing apparatus and full protective clothing for chemicals. |

6. Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
Do not touch the leakage, and do not walk on it. Prohibit unauthorized entry into the area. Wear appropriate personal protective equipment and avoid inhalation or contact with eyes and skin. If not wearing an appropriate personal protective clothing, do not touch the damaged leakage.
- 6.2 Environmental precautions
Do not release into the environment.
Pay attention not to cause the influence on the environment by discharging into rivers.
- 6.3 Methods and material for containment and cleaning up
Decontamination/Absorption/Sweeping/Vacuuming/Neutralization
In case of small quantity, absorb the leakage with dry soil, sand, and incombustible-material or collect it into a container that can be covered tightly for later disposal. In case of small quantity, use clean and anti-static tools to collect absorbed materials. In case of large quantity, prevent the spills from spreading with embankment to lead them to a safe place for collection. Collect the material into a disposal container by sucking up or sweeping up.
- Methods and Equipment for Containment and Cleaning up
All devices to handle spills must be grounded.
If not dangerous, stop the leak. Small amount: Prevent the material from wetting by rain. Cover with dry soil, dry sand, or non-combustibles and store under a plastic sheet cover to avoid scattering and wetting. Cleansing the contaminated area thoroughly with water after removal.
- Prevention Measures for Secondary Accidents.
Removes all ignition sources promptly. (Prohibition of smoking, sparks, and flames in the surrounding area)
Prevent flowing into drain, sewage, basement, and closed area.
- 6.4. Reference to other sections
See Section 8 and 13
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7. Handling and storage

- 7.1 Precautions for safe handling
Technical Measures
See Section 8.2.
- Local and General Ventilation
Provide local ventilations and a full ventilation system.
- Precautions for Safe Handling
Prohibit the use of heat, sparks, and fire in the surrounding area.
Wash hands thoroughly after handling.
Avoid swallowing.
Avoid the contact with the skin.
- Prevents Handling of Incompatible Substances or Mixtures
Not required in the normal handling."
- 7.2 Conditions for safe storage, including any incompatibilities
Store away from oxidants.
Have containers keep away from direct sunlight and heat.
Store in a well-ventilated and cool place keeping container tightly closed.
- 7.3 Specific end use(s)
Incompatible Substances or Mixtures
Refer to "10. Stability and reactivity"
- Storage Conditions
Store the ink cartridges in a cool and dark place.
Keep out of reach of children.
- Material Used in Packaging/Containers
Use containers prescribed in the "UN Transport Regulations."

8. Exposure controls/personal protection

8.1 Control parameters

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|-----------------|--|
| EU limit values | (2-methoxymethylethoxy)propanol: IOELV: 8 h TWA, 308 mg/m ³ (50 ppm). |
| UK limit values | (2-methoxymethylethoxy)propanol: WEL: 8 h TWA, 308 mg/m ³ (50ppm). |

8.2 Exposure controls

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|-------------------------------|--|
| Engineering Controls | Use Local exhaust ventilation. |
| Personal Protective Equipment | |
| Respiratory Protection | Respirator to avoid breathing organic solvent vapor. |
| Hand Protection | Wear chemical resistant gloves. |
| Eye Protection | Use safety glasses or goggles. |
| Skin and Body Protection | Wear working clothes. |
| Specific Hygiene Measures | Wash hands thoroughly after handling. |

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|---|
| Appearance | |
| Physical State | Liquid |
| Color | Yellow |
| Odor | Solvent odor |
| Odour threshold | Not available |
| pH | Not available |
| Melting/freezing point | Not available |
| Initial boiling point/range | Not available |
| Flash point | 71°C |
| Evaporation rate | Not available |
| Flammability (solid, gas) | Not available |
| Flamm. or expl. limits | 1.4 – 6.9v/v% as γ -Butyrolactone 1.3 – 10.4v/v% as (2-Methoxymethylethoxy)propanol |
| Vapour pressure | Not available |
| Vapour density | Not available |
| Relative density | 0.9 to 1.1 |
| Solubilities | Soluble in water |
| Partition coefficient: n-octanol/water | Not available |
| Auto-ignition temp. | Not available |
| Decomposition temp. | Not available |
| Viscosity | 5 to 15 mPa.s (25 °C) |
| Explosive properties | Not available |
| Oxidising properties | Not available |

9.2 Other information

No information available.

10. Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No information available.

10.4 Conditions to avoid

Extremely high temperature

- 10.5 Incompatible materials Oxidising agents, strong bases and transition metals
- 10.6. Hazardous decomposition products No information available
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11. Toxicological information

- 11.1 Information on toxicological effects
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|----------------------------------|---------------------------|
| Acute toxicity | No data available. |
| Skin corrosion/irritation | No data available. |
| Serious eye damage/irritation | May cause eye irritation. |
| Respiratory or skinsensitisation | No data available. |
| Germ cell mutagenicity | No data available. |
| Carcinogenicity | No data available. |
| Reproductive toxicity | No data available. |
| STOT-single exposure | No data available. |
| STOT-repeated exposure | No data available. |
| Aspiration hazard | No data available. |
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12. Ecological information

- 12.1 Toxicity No information available.
- 12.2 Persistence and degradability No information available.
- 12.3 Bioaccumulative potential No information available.
- 12.4 Mobility in soil No information available.
- 12.5 Results of PBT and vPvB assessment
- | | |
|------|-----------------|
| PBT | Not applicable. |
| vPvB | Not applicable. |
- 12.6 Other adverse effects
- | | |
|-----------------------|--------------------------|
| Environmental Hazards | No information available |
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13. Disposal considerations

- 13.1 Waste treatment methods
- Comply with national and local environmental regulations. Do not dump this product into sewers, on the ground or into any body of water.
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14. Transport information

- 14.1 UN number Not classified as dangerous goods according to UN criteria.
- 14.2 UN proper shipping name Not applicable.
- 14.3 Transport hazard class(es) Not applicable.
- 14.4 Packing group Not applicable.
- 14.5 Environmental hazards Not classified as environmentally hazardous.
- 14.6 Special precautions for user Not applicable.
- 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.
Follow all regulations in your country.

15. Regulatory information

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

UK: Control of Substances Hazardous to Health Regulations 2002(COSHH).

Workplace Exposure Limits EH40/2005, with 2007 supplement, Health and Safety Executive.

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

15.2 Chemical safety assessment

No information available.

16. Other information

Abbreviations

PBT, persistent, bioaccumulative, and toxic; STEL, short-term exposure limit; STOT SE, specific target organ toxicity single exposure; TWA, time-weighted average; vPvB, very persistent, very bioaccumulative.

References

Annex VI of Regulation 1272/2008 on Harmonised Classification and Labelling for Certain Hazardous Substances.

Existing Chemical Substances Information System (ESIS) available at the European Chemical Bureau website:

<http://ecb.jrc.ec.europa.eu/esis/>

Information on Registered Substances; Chemical Substance Search; European Chemicals Agency (ECHA), available at the ECHA website: <http://echa.europa.eu>.

Basis of classification

The mixture is self-classified on the basis of available information on the ingredients.

List of R-phrases

R22, harmful if swallowed.

R36, irritating to eyes.

List of hazard statements

H302: Harmful if swallowed.

H319: Causes serious eye irritation.

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