

2.2. GHS label elements

Hazard pictograms



Signal word : Danger

Hazard statements

- H226 : Flammable liquid and vapour
H302 : Harmful if swallowed
H315 : Causes skin irritation
H319 : Causes serious eye irritation
H351 : Suspected of causing cancer
H360 : May damage fertility or the unborn child
H370 : Causes damage to organs(Respiratory organ, Liver, Central nervous system, Kidney)
H336 : May cause drowsiness or dizziness
H372 : Causes damage to organs(Respiratory organ, Nervous system, Auditory device) through prolonged or repeated exposure
H304 : May be fatal if shallowed and enters airways
H401 : Toxic to aquatic life
H411 : Toxic to aquatic life with long lasting effects

Precautionary statements

Prevention

- P210 : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 : Keep container tightly closed.
P240 : Ground and bond container and receiving equipment.
P241 : Use explosion-proof electrical/ventilating/lighting equipment.
P242 : Use non-sparking tools.
P243 : Take action to prevent static discharges.
P280 : Wear protective gloves/protective clothing/eye protection/face protection.
P264 : Wash hands and face thoroughly after handling.
P270 : Do not eat, drink or smoke when using this product.
P201 : Obtain special instructions before use.
P202 : Do not handle until all safety precautions have been read and understood.
P260 : Do not breathe dust/fume/gas/mist/vapours/spray.
P271 : Use only outdoors or in a well-ventilated area.
P273 : Avoid release to the environment.

Response

- P301+P310 : IF SWALLOWED: Immediately call a doctor.
P330 : Rinse mouth.
P331 : Do NOT induce vomiting.
P302+P352 : IF ON SKIN: Wash with plenty of water and soap.
P303+P361+P353 : IF ON SKIN (or hair): Take off immediately all contaminated clothing.

- P362+P364 : Take off contaminated clothing and wash it before reuse.
 P305+P351+P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 : If eye irritation persists: Get medical advice/attention.
 P308+P311 : IF exposed or concerned: Call a POISON CENTER/doctor.
 P304+P340 : IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P312 : Call a POISON CENTER/doctor if you feel unwell.
 P391 : Collect spillage.
 P370+P378 : In case of fire: Use water spray, foam, dry, chemical powder or carbon dioxide to extinguish.

Storage

- P403+P235+P233 : Store in a well-ventilated place. Keep cool. Keep container tightly closed.
 P405 : Store locked up.

Disposal

- P501 : Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards : None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance or mixture : Mixture

Ingredients and composition

Ingredients	CAS Number	Weight %	Component
Xylene	1330-20-7	44-56	All colors
Ethylbenzene	100-41-4	7.3-9.2	All colors
Butan-1-ol	71-36-3	10-15	All colors
1-Methoxypropan-2-ol	107-98-2	5.0	Black
Blue Dye	Non public	6.0	Green

4. FIRST AID MEASURES

4.1. Description of first aid measures

- Inhalation : Remove subject to ventilated fresh air. Consult physician if necessary.
 Ingestion : Refer for medical attention.
 Skin contact : Wash the affected area under tepid running water using a mild soap. And refer for medical attention if irritation continues.
 Eye contact : Gently rinse the affected eyes with clean water for at least 15 minutes. And refer for medical attention if irritation continues.

First aid facilities : Ensure eyewash and water service are available.

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

Ink contact with skin may cause irritation, swelling or redness.

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

In case of skin or eye contamination treat as under First Aid Measures.

5. FIRE-FIGHTING MEASURES

- 5.1. Suitable extinguishing media
: In case of fire, use foam, dry chemical powder or carbon dioxide.
- 5.2. Specific hazards arising from the substance or mixture
: CO₂, CO, NO_x, and SO_x, is produced after combustion.
- 5.3. Special protective equipment and precautions for fire-fighters
: None

6. ACCIDENTAL RELEASE MEASURES

- 6.1. Personal precautions, protective equipment and emergency procedures
: Use proper ventilation. Use eye and skin protection.
- 6.2. Environmental precautions
: Do not dispose of waste to the sewer.
- 6.3. Methods and material for containment and cleaning up
: Absorb spill with material (cloth or paper), then place in a chemical waste containers.

7. HANDLING AND STORAGE

- 7.1. Precautions for safe handling
: Use proper ventilation. Avoid rough handling or dropping.
Wear protective gloves/protective clothing/eye protection/face protection.
Keep out of reach of children and do not drink ink.
- 7.2. Conditions for safe storage, including any incompatibilities
: Store in a dry, cool, well-ventilated location, away from possible all source of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1. Control parameters
Occupational exposure limits
: ACGIH TLV-TWA

Xylene	: 100 ppm
Ethylbenzene	: 100 ppm
Butan-1-ol	: 20 ppm
1-Methoxypropan-2-ol	: 100 ppm
- 8.2. Appropriate engineering controls
: In the case of the handling of the room to install a closed reduction or local exhaust sources.
Electrical equipment to be used in handling the location could be explosion-proof structure, equipment is static electricity measures.
- 8.3. Individual protection measures, such as personal protective equipment.
: Wear protective gloves/protective clothing/eye protection/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1. Information on basic physical and chemical properties
 - (a) Appearance : Liquid
[Color] Black, Red, Green
 - (b) Odor : Organic solvent odor
 - (c) Odor threshold : No data

(e) Melting point/freezing point	: -47 degrees Celsius (m-Xylene)
(f) Initial boiling point/boiling range	: 139 degrees Celsius (m-Xylene)
(g) Flash point	: 28 degrees Celsius (m-Xylene)
(h) Evaporation rate	: No data
(i) Flammability (solid, gas)	: Flammable
(j) Upper/lower flammability or explosive limits	: LEL 1.1 vol.%, UEL 7.0 vol.% (m-Xylene)
(k) Vapor pressure	: 826 Pa (at 20 degrees Celsius, m-Xylene)
(l) Vapor density	: 3.66 (m-Xylene)
(m) Relative density	: 0.91-0.94 (at 20 degrees Celsius)
(n) Solubility	: Insoluble in water
(o) Partition coefficient: n-octanol/water	: log Pow=3.2 (m-Xylene)
(p) Auto-ignition temperature	: No data
(q) Decomposition temperature	: No data
(r) Viscosity	: 1.9-4.9 mPa·s (at 20 degrees Celsius)
9.2. Other information	: None

10. STABILITY AND REACTIVITY

10.1. Reactivity	: This material is stable.
10.2. Chemical stability	: This material is stable.
10.3. Possibility of hazardous reactions	: This material is stable.
10.4. Conditions to avoid	: Direct sunshine, the high temperature and source of ignition.
10.5. Incompatible materials	: Strong oxidizing agents and reducing agents.
10.6. Hazardous decomposition products	: Heating can release vapours which can be ignited. : Burning produces obnoxious and toxic fumes, carbon oxides.

11. TOXICOLOGICAL INFORMATION

There is no data available on the mixture itself.

Information on toxicological effects

Acute toxicity (oral)	: Xylene	: Category 5
	: Ethylbenzene	: Category 5
	: Butan-1-ol	: Category 4
Skin corrosion/irritation	: Xylene	: Category 2
	: Ethylbenzene	: Category 3
	: Butan-1-ol	: Category 2
Eye damage/irritation	: 1-Methoxypropan-2-ol	: Category 3
	: Xylene	: Category 2
	: Ethylbenzene	: Category 2
Carcinogenicity	: Butan-1-ol	: Category 2
	: 1-Methoxypropan-2-ol	: Category 2
	: Ethylbenzene	: Category 2
Toxic to reproduction	: Ethylbenzene	: Category 1
Specific target organ toxicity	: Xylene	: Category 1 (Respiratory organ, Liver,

	: Ethylbenzene	: Category 2 (Central nervous system)
	: Butan-1-ol	: Category 3 (Respiratory irritation/ Narcotic effects)
	: 1-Methoxypropan-2-ol	: Category 3 (Narcotic effects)
Specific target organ toxicity (repeated exposure)	: Xylene	: Category 1 (Respiratory organ, Nervous system)
	: Butan-1-ol	: Category 1 (Central nervous system, Auditory device)
Aspiration hazard	: Xylene	: Category 1
	: Ethylbenzene	: Category 1

12. ECOLOGICAL INFORMATION

There is no data available on the mixture itself.

12.1. Ecotoxicity

12.1.1. Hazardous to the aquatic environment, short-term (acute)	: Xylene	: Category 2
	: Ethylbenzene	: Category 1
	: Blue Dye	: Category 3
12.1.2. Hazardous to the aquatic environment, long-term (chronic)	: Xylene	: Category 2
	: Blue Dye	: Category 3
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. Other adverse effects	: None	

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Follow all regulations in your country.

14. TRANSPORT INFORMATION

For ink unless otherwise specified.

14.1. UN number	: 1993
14.2. UN proper shipping name	: Flammable Liquid N.O.S. (Xylene)
14.3. Transport hazard class(es)	: 3
14.4. Packing group	: III
14.5. Environmental hazards	: Not applicable
14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	: Not applicable
14.7. Special precautions for user	: Not applicable

The above mentioned information is for ink.

Finished marker pen itself is not regarded as hazardous goods.

Ink below 10 ml per pen is absorbed in polyester filter reservoir inside of the pen. (SC-F/B-B/R-A)

Applying to UN No.3175 is depending on ink filling volume. (SC-6600-B/R/G-A)

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
Follow all regulations in your country.

16. OTHER INFORMATION

International GHS conformity.

The information here is given in good faith, but no warranty, express or implied, is made.

Final determination of suitability of any material is the sole responsibility of the user.

End of SDS