

Neon Orient (Shanghai) Co., Ltd.
Safety Data Sheet (SDS)

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According to Commission Regulation (EU) No 453/2010

Printing date 03.03.2018

Version number 6

Revision date 03.03.2018

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

- 1.1 Product identifier
 - Product name: Marker Ink Blue
 - Product type/code: MD-4
 - Registration number: No registration number is given yet for this product.

- 1.2 Relevant identified uses of the substance or mixture and uses advised against
 - Identified uses: Used to marker-pen inks.
 - Use advised against: No information available.

- 1.3 Details of the supplier of the safety data sheet
 - Manufacturer/Supplier:
Neon Orient (Shanghai) Co., Ltd.
Address: Room 516 – 518, No. 583, Lingling Road. (Offshore Oil Mansion) Shanghai, P.R. China
Postcode: 200030
Tel: +(86) 21-64640878

2 SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
 - Classification according to Regulation (EC) No 1272/2008 [CLP]

Muta. 2	H341 Suspected of causing genetic defects.
Eye Dam. 1	H318 Causes serious eye damage.
Aquatic Chronic 2	H411 Toxic to aquatic life with long lasting effects.
STOT SE 3	H336 May cause drowsiness or dizziness.

 - Classification according to Directive 67/548/EEC [DSD] or Directive 1999/45/EC [DPD]

Muta. Cat. 3; R68	
Xi: R41	
R51/53-67	
 - Classification system:
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- 2.2 Label elements
 - Labelling according to Regulation (EC) No 1272/2008 [CLP]
The product is classified and labelled according to the CLP regulation.

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· Hazard pictogram(s):



GHS05

GHS07

GHS08

GHS09

· Signal word: Danger

· Hazard-determining components of labelling:

propan-1-ol

chrysoidine

· Hazard statement(s):

H318 Causes serious eye damage.

H341 Suspected of causing genetic defects.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

· Precautionary statements:

- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P103 Read label before use.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P281 Use personal protective equipment as required.
- P273 Avoid release to the environment.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER or doctor/physician.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P405 Store locked up.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· 2.3 Other hazards No information available.

· Results of PBT and vPvB assessment: Not applicable.

· PBT: Not applicable.

· vPvB: Not applicable.

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3 SECTION 3: Composition/information on ingredients

· 3.1 Chemical characterization: Mixtures

· Description:

Product: consisting of the following components.

Ingredient	CAS No.	EC No.	Concentration
ethanol	64-17-5	200-578-6	50.0-60.0%
1-methoxy-2-propanol	107-98-2	203-539-1	10.0-25.0%
propan-1-ol	71-23-8	200-746-9	10.0-25.0%
phosphoric acid, 2-ethylhexyl ester	12645-31-7	235-741-0	2.5-10.0%
C.I. Solvent Blue 4	6786-83-0	--	2.0-2.5%
C.I. Solvent Blue 5 additive	1325-86-6 26266-58-0	-- 247-569-3	2.0-2.5% 0.5-2.0%

· Dangerous components:		
CAS: 64-17-5 EINECS: 200-578-6	ethanol F R11 Flam. Liq. 2, H225	50-60%
CAS: 107-98-2 EINECS: 203-539-1	1-methoxy-2-propanol R10-67 Flam. Liq. 3, H226; STOT SE 3, H336	10-25%
CAS: 71-23-8 EINECS: 200-746-9	propan-1-ol Xi R41; F R11 R67 Flam. Liq. 2, H225; Eye Dam. 1, H318; STOT SE 3, H336	10-25%

· Additional information: For the wording of the listed risk phrases refer to section 16.

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4 SECTION 4: First aid measures

- 4.1 Description of first aid measures
- General information: In all cases of doubt, or when symptoms persist, seek medical attention.
- Following inhalation:
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if breathing difficulties continue.
- Following skin contact:
Wash off immediately with plenty of water. Remove contaminated clothing and shoes. Get medical attention if any symptoms develop.
- Following eye contact:
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON Center or doctor/physician.
- Following ingestion:
Never give anything through mouth to an unconscious person. Get medical attention immediately.
- Information for doctor: Symptomatic treatment is advised.

- 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 No information available.

5 SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- Suitable extinguishing agents: CO₂, dry chemical powder, water spray.
- Unsuitable extinguishing agents: No information available.

- 5.2 Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.
In case of fire, the following can be released:
Carbon monoxide (CO), Carbon dioxide, Nitrogen oxide
Other irritating and toxic gases.

- 5.3 Advice for firefighters
Fire-fighters should wear appropriate breathing apparatus and protective equipment. Prevent fire-fighting water from entering surface water or groundwater.
- Protective equipment: Wear self-contained respiratory protective device.

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6 SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Refer to Section 8 for personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.

Evacuate personnel to safe areas.

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions

Do not allow material to be released into the soil, sewerage systems and surface water.

Inform respective authorities in case of seepage into water course or sewage system.

Keep contaminated washing water and dispose of appropriately.

· 6.3 Methods and material for containment and cleaning up

Evacuate area of all unnecessary personnel. Shut off source, if possible. Absorb spillage with dry, inert absorbent material such as sand or clay. Transfer to containers using non-sparking equipment and recycle in the mill.

Dispose contaminated material as waste according to item 13.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 SECTION 7: Handling and storage

· 7.1 Handling

Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment as required.

Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Use this material with adequate ventilation.

· Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about fire - and explosion protection: Keep ignition sources away - Do not smoke.

· 7.2 Conditions for safe storage, including any incompatibilities

Store in cool, dry and well-ventilated place. Keep away from heat and ignition sources. Store away from incompatible materials.

· 7.3 Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

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8 SECTION 8: Exposure controls/personal protection

· Information about design of technical facilities:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

64-17-5 ethanol

PEL (USA)	1900 mg/m ³ , 1000 ppm
REL (USA)	1900 mg/m ³ , 1000 ppm
TLV (USA)	Short-term value: 1880 mg/m ³ , 1000 ppm

107-98-2 1-methoxy-2-propanol

IOELV (EU)	Short-term value: 568 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm Skin
REL (USA)	Short-term value: 540 mg/m ³ , 150 ppm Long-term value: 360 mg/m ³ , 100 ppm
TLV (USA)	Short-term value: 553 mg/m ³ , 150 ppm Long-term value: 369 mg/m ³ , 100 ppm

71-23-8 propan-1-ol

OEL (EU)	Short-term value: 300 mg/m ³ Long-term value: 200 mg/m ³
PEL (USA)	500 mg/m ³ , 200 ppm
REL (USA)	Short-term value: 625 mg/m ³ , 250 ppm Long-term value: 500 mg/m ³ , 200 ppm Skin
TLV (USA)	246 mg/m ³ , 100 ppm

· DNELs No information available.

· PNECs No information available.

· Additional information: The lists valid during the making were used as basis.

· 8.2 Exposure controls

· Appropriate engineering controls:

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Provide local exhaust or process enclosure ventilation system.

The work area set safety shower and eyewash equipment.

· General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Skin protection:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye and face protection:



Tightly sealed goggles

· Body protection: Protective work clothing

9 SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· Appearance:

Form: Liquid

Colour: Blue

· Odour: Not determined.

· pH-value: Not determined.

· Melting point/Melting range: Not determined.

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· Boiling point/Boiling range:	Not determined.
· Flash point:	Not determined.
· Flammability (solid, gaseous):	Not applicable.
· Auto-Ignition temperature:	Not determined.
· Decomposition temperature:	Not determined.
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Vapour pressure:	Not determined.
· Density:	Not determined.
· Evaporation rate:	Not determined.
· Solubility in/Miscibility with:	
Water:	Partly miscible.
· Organic solvents:	Soluble in many organic solvents.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
· 9.2 Additional information	No further relevant information available.

10 SECTION 10: Stability and reactivity

- 10.1 Reactivity Stable under recommended storage and handling conditions (see section 7, handling and storage).
- 10.2 Chemical stability Stable under normal conditions of use, storage and transport.
- Thermal decomposition/conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid Strong heating, fire. Incompatible materials.
- 10.5 Incompatible materials Strong acids, strong bases or strong oxidizing agents.
- 10.6 Hazardous decomposition products
Nitrogen oxides
Carbon monoxide and carbon dioxide
Other irritating and toxic gases.

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11 SECTION 11: Toxicological information

· Acute toxicity:

· LD/LC50 values relevant for classification:

64-17-5 ethanol

Oral	LD50	7060 mg/kg (rat)
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Inhalative	LC50	20000 mg/l (rat)
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107-98-2 1-methoxy-2-propanol

Oral	LD50	5660 mg/kg (rat)
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Dermal	LD50	13000 mg/kg (rabbit)
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Inhalative	LC50	6 mg/l (rat)
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71-23-8 propan-1-ol

Oral	LD50	1870 mg/kg (rat)
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Dermal	LD50	5040 mg/kg (rabbit)
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· Skin corrosion/irritation: No irritant effect.

· Serious eye damage/irritation: Strong irritant with the danger of severe eye injury.

· Respiratory or skin sensitization: No sensitizing effects known.

· Specific target organ system toxicity: May cause drowsiness or dizziness.

· CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction): May cause genetic defects.

12 SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity: Toxic to aquatic life with long lasting effects.

· 12.2 Persistence and degradability No further relevant information available.

· 12.3 Bioaccumulative potential No further relevant information available.

· 12.4 Mobility in soil No further relevant information available.

· Additional ecological information:

· General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

· 12.5 Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

· 12.6 Other adverse effects Toxic to aquatic life with long lasting effects.

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13 SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
- Recommendation:
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

14 SECTION 14: Transport information

· 14.1 Land transport



- ADR/RID class: 9 Miscellaneous dangerous substances and articles.
- UN-Number: 3082
- Packaging group: III
- Special marking: Symbol (fish and tree)

· 14.2 Maritime transport



- IMDG Class: 9
- UN Number: 3082
- Packaging group: III

- Marine pollutant: Yes
Symbol (fish and tree)
- Proper shipping name: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains chrysoidine)

· 14.3 Air transport



- ICAO/IATA Class: 9
- UN/ID Number: 3082
- Special marking: Symbol (fish and tree)
- Packaging group: III

- Proper shipping name: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains chrysoidine)

- UN "Model Regulation":
UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9

- 14.5 Special precautions for user Warning: Miscellaneous dangerous substances and articles.

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15 SECTION 15: Regulatory information

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

EU Regulation:

Authorisations: No information available.

Restrictions on use: No information available.

Regulatory information:

CAS No.	64-17-5	107-98-2	71-23-8	12645-31-7	6786-83-0	1325-86-6	26266-58-0
EU-EINECS	Listed	Listed	Listed	Listed	Listed	Listed	Listed
US-TSCA	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Canada-DSL	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Australia-AICS	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Korea-ECL	Listed	Listed	Listed	Listed	Listed	Listed	Listed
China-IECSC	Listed	Listed	Listed	Listed	Listed	Listed	Listed

· 15.2 Chemical safety assessment A Chemical Safety Assessment has not been carried out.

16 SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases:

R10: Flammable.

R11: Highly flammable.

R22: Harmful if swallowed.

R38: Irritating to skin.

R41: Risk of serious damage to eyes.

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R67: Vapours may cause drowsiness and dizziness.

R68: Possible risk of irreversible effects.

H225: Highly flammable liquid and vapour.

H226: Flammable liquid and vapour.

H302: Harmful if swallowed.

H315: Causes skin irritation.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

· Training hints: Provide adequate information, instruction and training for operators.