



Safety Data Sheet

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

1.1 Product identifiers

Product name : **MICPIC INK BLACK A-86**

Use of the substance/preparation : **WHITE BOARD MARKER INK**

Brand : ORIENT CHEMICAL(KOREA), LTD

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

Identified uses : Phrase company

1.3 Details of the supplier of the safety data sheet

Company : ORIENT CHEMICAL (KOREA), LTD.
142, Sandan-ro 35 beon-gil, Danwon-gu,
Ansan-si, Gyeonggi-do, KOREA

Telephone : +82 - 31-493-6166~7

Fax : +82 - 31-491-3405

E-mail address : orient@orient-chemical.com

1.4 Emergency telephone number

Emergency Phone # : +82 - 31-493-6166~8

SECTION 2 : Hazards identification

2.1 Classification

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

Labeling according to Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger



Hazard statement(s)

H225	Highly flammable liquid and vapour
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness

Precautionary statement(s)

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

none

According to European Directive 67/548/ELS as amended.

Hazard symbol(s)



R-pharse(s)

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

S-pharse(s)

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 with plenty of ... (to be specified by the manufacturer).

2.3 Other Hazards – none



SECTION 3 : Composition / information on ingredients

Ingredient name	CAS-No.	EC-No.	Content(%)	Classification
ETHANOL	64-17-5	200-578-6	≤30	-
ISO PROPANOL	67-63-0	200-661-7	≤45	-
CARBON BLACK	1333-86-4	215-609-9	≤8	-
POLY VINYL BUTYRAL RESIN	63148-65-2		≤10	-
ADDITIVE	Trade Secrets	Trade Secrets	≤15	-

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.

If inhaled

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 any 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 firefighters

Wear self contained breathing apparatus for fire fighting 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.

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.

Personal protective equipment

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).

Control of environmental exposure

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

a) Appearance	Form : liquid Color : Black
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	≥ 5.5 at 25.0 °C
e) Melting point/freezing point	-144.0 °C
f) Initial boiling point and boiling range	78.0 – 82.0 °C
g) Flash point	14.0 °C - closed cup
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	Upper explosion limit: no data available Lower explosion limit: no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	no data available
n) Water solubility	Insoluble
o) Partition coefficient: n- octanol/water	no data available
p) Auto-ignition temperature	425.0 °C
q) Decomposition temperature	no data available
r) Viscosity	≥ 10cps at 25.0 °C
s) Explosive properties	no data available
t) Oxidizing properties	no data available
u) Surface tension	≥ 24 mN/m at 25.0 °C
v) Specific gravity	≥ 0.85 at 25.0 °C

9.2 Other safety information

no data 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
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: Behavioral:Altered sleep time (including change in righting reflex). Behavioral:Somnolence (general depressed activity).

LC50 Inhalation - rat - 8 h - 16000 ppm

LD50 Dermal - rabbit - 12.800 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 considerations

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: MICPIC INK BLACK A-86 (Flammable Liquid, N. O. S)

IMDG: MICPIC INK BLACK A-86 (Flammable Liquid, N. O. S)

IATA: MICPIC INK BLACK A-86 (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) No. 12721/2008

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

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Sources of key data used to compile the data sheet:

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.
Institut 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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