



1. IDENTIFICATION

Product identifier

Mixture identification:

Trade name: Ink Cartridge,MS,350, T890B

Other means of identification:

Trade code: C13T890B00

Recommended use of the chemical and restrictions on use

Recommended use:

Ink for inkjet printing

Details of the supplier of the safety data sheet

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company:

EPSON AMERICA Inc.
3840 Kilroy Airport Way
Long Beach, CA 90806
United States

Telephone : 562.276.1369

Emergency phone number

Telephone : 562.276.1369

2. HAZARD(S) IDENTIFICATION

Classification of the chemical

Warning, Flam. Liq. 4, Combustible liquid.

 Warning, Skin Irrit. 2, Causes skin irritation.

Label elements

Hazard pictograms:



Warning

Hazard statements:

H227 Combustible liquid.

H315 Causes skin irritation.

Precautionary statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P370+P378 In case of fire, use water to extinguish.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

None

Hazards not otherwise classified identified during the classification process:

None

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Additional classification information

NFPA rating:



HMIS rating:



3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

N.A.

Mixtures

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

65% ~ 80% Bis(2-ethoxyethyl) ether

REACH No.: 01-2119969946-13, CAS: 112-36-7, EC: 203-963-7

 A.2/2 Skin Irrit. 2 H315

B.6/4 Flam. Liq. 4 H227

15% ~ 20% gamma-Butyrolactone

CAS: 96-48-0, EC: 202-509-5

The product is not classified as dangerous according to OSHA Hazard Communication Standard (29 CFR 1910.1200).

1% ~ 3% aluminium powder (stabilised)

Index number: 013-002-00-1, CAS: 7429-90-5, EC: 231-072-3

 B.12/2 Water-react. 2 H261

 B.7/1 Flam. Sol. 1 H228

4. FIRST-AID MEASURES

Description of necessary measures

In case of skin contact:

Immediately take off all contaminated clothing.

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

Most important symptoms/effects, acute and delayed

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None

Indication of immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

CO2 or Dry chemical fire extinguisher.

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products:

None

Explosive properties: N.A.

Oxidizing properties: N.A.

Special protective equipment and precautions for fire-fighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Remove persons to safety.

Use appropriate respiratory protection.

See protective measures under point 7 and 8.

Methods and materials for containment and cleaning up

Wash with plenty of water.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Do not use on extensive surface areas in premises where there are occupants.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Always keep in a well ventilated place.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

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Cool and adequately ventilated.
Storage temperature:
Store at ambient temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

aluminium powder (stabilised) - CAS: 7429-90-5
- OEL Type: ACGIH - LTE(8h): 1 mg/m³ - Notes: (R), A4 - Pneumoconiosis, LRT irr, neurotoxicity

DNEL Exposure Limit Values

Bis(2-ethoxyethyl) ether - CAS: 112-36-7
Worker Industry: 5.96 mg/m³ - Exposure: Human Inhalation
Worker Industry: 1.71 mg/kg/day - Exposure: Human Oral
Worker Professional: 50.05 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Professional: 3.43 mg/kg/day - Exposure: Human Dermal - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

Bis(2-ethoxyethyl) ether - CAS: 112-36-7
Target: Fresh Water - Value: 0.001 mg/l
Target: Freshwater sediments - Value: 0.007 mg/kg
Target: Marine water - Value: 0.0001397 mg/l
Target: Marine water sediments - Value: 0.0006778 mg/kg
Target: Air - Value: 0.000001105 mg/m³

Appropriate engineering controls:

None

Individual protection measures

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and colour:	Silver Liquid
Odour:	Slightly
Odour threshold:	N.A.
pH:	Not Relevant
Melting point / freezing point:	N.A.
Initial boiling point and boiling range:	N.A.
Flash point:	> 78.7 °C / 174 ° F (Cleveland open cup method, JIS K2265-4)
Evaporation rate:	N.A.
Solid/gas flammability:	N.A.
Upper/lower flammability or explosive limits:	N.A.
Vapour pressure:	N.A.
Vapour density:	N.A.
Relative density:	N.A.
Solubility in water:	Insoluble

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Solubility in oil:	N.A.
Partition coefficient (n-octanol/water):	N.A.
Auto-ignition temperature:	N.A.
Decomposition temperature:	N.A.
Viscosity:	< 5 mPa·s at 25 °C
Miscibility:	N.A.
Fat Solubility:	N.A.
Conductivity:	N.A.
Substance Groups relevant properties	N.A.

10. STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions
Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	None
Conditions to avoid	Stable under normal conditions.
Incompatible materials	None in particular.
Hazardous decomposition products	None.

11. TOXICOLOGICAL INFORMATION

Toxicological information of the mixture:

e) germ cell mutagenicity:

Test: Mutagenesis - Species: Salmonella Typhimurium and Escherichia coli Negative

Toxicological information of the main substances found in the mixture:

Bis(2-ethoxyethyl) ether - CAS: 112-36-7

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 4970 mg/kg - Notes: OECD TG No.401

c) serious eye damage/irritation:

Test: Eye Irritant - Species: Rabbit Non-irritant - Notes: OECD TG No.405

Substance(s) listed on the NTP report on Carcinogens:

None.

Substance(s) listed on the IARC Monographs:

gamma-Butyrolactone - Group 3.

Substance(s) listed as OSHA Carcinogen(s):

None.

Substance(s) listed as NIOSH Carcinogen(s):

None.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Adopt good working practices, so that the product is not released into the environment.

Bis(2-ethoxyethyl) ether - CAS: 112-36-7

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 10000 mg/l - Duration h: 96

Endpoint: LC50 - Species: Daphnia = 6600 mg/l - Duration h: 96

Persistence and degradability

N.A.

Bioaccumulative potential

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N.A.
Mobility in soil
N.A.
Other adverse effects
None

13. DISPOSAL CONSIDERATIONS

Waste treatment and disposal methods
Recover if possible. In so doing, comply with the local and national regulations currently in force.

14. TRANSPORT INFORMATION

UN number
Not classified as dangerous in the meaning of transport regulations.
UN proper shipping name
N.A.
Transport hazard class(es)
N.A.
Packing group
N.A.
Environmental hazards
N.A.
Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)
N.A.
Special precautions
N.A.

15. REGULATORY INFORMATION

USA - Federal regulations
TSCA - Toxic Substances Control Act
TSCA inventory: all the components are listed on the TSCA inventory.
TSCA listed substances:
Bis(2-ethoxyethyl) ether is listed in TSCA Section 5a - SNUR, Section 12b.
SARA - Superfund Amendments and Reauthorization Act
Section 302 – Extremely Hazardous Substances: no substances listed.
Section 304 – Hazardous substances: no substances listed.
Section 313 – Toxic chemical list: Bis(2-ethoxyethyl) ether.
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
Substance(s) listed under CERCLA: Bis(2-ethoxyethyl) ether.
CAA - Clean Air Act
CAA listed substances:
Bis(2-ethoxyethyl) ether is listed in CAA Section 111, Section 112.
CWA - Clean Water Act
CWA listed substances:
None.

USA - State specific regulations
California Proposition 65
Substance(s) listed under California Proposition 65:
None.
Massachusetts Right to know
Substance(s) listed under Massachusetts Right to know:
Bis(2-ethoxyethyl) ether.
New Jersey Right to know
Substance(s) listed under New Jersey Right to know:

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Bis(2-ethoxyethyl) ether.
Pennsylvania Right to know
Substance(s) listed under Pennsylvania Right to know:
No substances listed.

16. OTHER INFORMATION

Full text of phrases referred to in Section 3:

H315 Causes skin irritation.
H227 Combustible liquid.
H261 In contact with water releases flammable gases.
H228 Flammable solid.

Safety Data Sheet dated February 15, 2016, Revision: 1.0

Disclaimer:

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. The information relates only to the specific material and may not be valid for such material used in combination with any other material or in any process.

This Safety Data Sheet cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CLP: Classification, Labeling, Packaging.
DNEL: Derived No Effect Level.
EINECS: European Inventory of Existing Commercial Chemical Substances.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
HMIS: Hazardous Materials Identification System
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG: International Maritime Code for Dangerous Goods.
INCI: International Nomenclature of Cosmetic Ingredients.
KSt: Explosion coefficient.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
LTE: Long-term exposure.
NFPA: National Fire Protection Association
NIOSH: National Institute for Occupational Safety and Health
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PNEC: Predicted No Effect Concentration.
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STE: Short-term exposure.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).

