1. IDENTIFICATION
Product identifier
Mixture identification: Ink Cartridge, T5964

Recommended use of the chemical and restrictions on use
Recommended use: Ink for inkjet printing

Details of the supplier of the safety data sheet
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
The product is not classified as dangerous according to OSHA Hazard Communication Standard (29 CFR 1910.1200).

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

Hazard pictograms: None
Hazard statements: None
Precautionary statements: None
Special Provisions: None
Hazards not otherwise classified identified during the classification process: None

Additional classification information
NFPA rating:

HMIS rating:

3. COMPOSITION/INFORMATION ON INGREDIENTS
Substances
No
Mixtures
Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:
4. FIRST-AID MEASURES
   Description of necessary measures
   In case of skin contact:
   Wash with plenty of water and soap.
   In case of eyes contact:
   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
   None
   Indication of immediate medical attention and special treatment needed
   Treatment:
   None

5. FIRE-FIGHTING MEASURES
   Suitable extinguishing media:
   Water.
   Carbon dioxide (CO2).
   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: No data available
   Oxidizing properties: No data available
   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.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities
Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Adequately ventilated premises.
Storage temperature:
Store at ambient temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Control parameters
Glycerol - CAS: 56-81-5
- OEL Type: OSHA - TWA: 5 mg/m3 - Notes: Respirable dust
- OEL Type: OSHA - TWA: 15 mg/m3 - Notes: Total dust
Ethanol - ethylene glycol - CAS: 107-21-1
- OEL Type: EU - TWA(8h): 52 mg/m3, 20 ppm - STEL: 104 mg/m3, 40 ppm - Notes: Skin designation
- OEL Type: ACGIH - TWA(8h): 25 ppm - STEL: 50 ppm
- OEL Type: ACGIH - STEL: 10 mg/m3
Triethanol amine - CAS: 102-71-6
- OEL Type: ACGIH - TWA(8h): 5 mg/m3
DNEL Exposure Limit Values
No data available
PNEC Exposure Limit Values
No data available
Appropriate engineering controls:
None
Individual protection measures
Eye protection:
Use personal protective equipment as required.
Protection for skin:
Use personal protective equipment as required.
Protection for hands:
Use personal protective equipment as required.
Respiratory protection:
Use personal protective equipment as required.
Thermal Hazards:
None
9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and colour: Yellow Liquid
Odour: Slightly
Odour threshold: No data available
PH: 8.7 - 10.1 at 20 °C
Melting point / freezing point: -19.0 °C
Initial boiling point and boiling range: No data available
Flash point: Does not flash.
Evaporation rate: No data available
Solid/gas flammability: No data available
Upper/lower flammability or explosive limits: No data available
Vapour pressure: No data available
Vapour density: No data available
Relative density: 1.071 at 20 °C
Solubility in water: Complete
Solubility in oil: No data available
Partition coefficient (n-octanol/water): No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: < 5 mPa·s at 20 °C
Miscibility: No data available
Fat Solubility: No data available
Conductivity: No data available

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 product:
f) carcinogenicity:
Does not contain carcinogens (Ref. 1)
g) reproductive toxicity:
Does not contain reproductive toxicity and developmental toxic substances (Ref. 2)
Toxicological information of the main substances found in the product:
Glycerol - CAS: 56-81-5
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Guinea pig = 7750 mg/kg - Source: Journal of Industrial Hygiene and Toxicology, Vol. 23, Pg. 259, 1941
ethanediol; ethylene glycol - CAS: 107-21-1
a) acute toxicity:
Safety Data Sheet

Triethanol amine - CAS: 102-71-6
a) acute toxicity:

Substance(s) listed on the NTP report on Carcinogens:
None.
Substance(s) listed on the IARC Monographs:
Triethanol amine - 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.
No data available
Persistence and degradability
No data available
Bioaccumulative potential
No data available
Mobility in soil
No data available
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
No data available
Transport hazard class(es)
No data available
Packing group
No data available
Environmental hazards
No data available
Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)
No data available
Special precautions
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:
None.
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: ethanediol; ethylene glycol.
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
- Substance(s) listed under CERCLA: ethanediol; ethylene glycol - Reportable quantity: 5000 pounds.
- Reportable quantity for mixture: 141003.9481 pounds.
CWA - Clean Water Act
CWA listed substances:
None.
USA - State specific regulations
California Proposition 65
- Substance(s) listed under California Proposition 65:
  ethanediol; ethylene glycol - Listed as reproductive toxicant.
Massachusetts Right to know
- Substance(s) listed under Massachusetts Right to know:
  ethanediol; ethylene glycol.
New Jersey Right to know
- Substance(s) listed under New Jersey Right to know:
  ethanediol; ethylene glycol.
Pennsylvania Right to know
- Substance(s) listed under Pennsylvania Right to know:
  ethanediol; ethylene glycol.

16. OTHER INFORMATION

Full text of phrases referred to in Section 3:
H302 Harmful if swallowed.

Safety Data Sheet dated March 12, 2019, Revision: 2.0
Sections modified from the previous revision:
  8. EXPOSURE CONTROLS/PERSONAL PROTECTION
  9. PHYSICAL AND CHEMICAL PROPERTIES
  11. TOXICOLOGICAL INFORMATION
  15. REGULATORY INFORMATION

Main bibliographic sources:
- Journal of Occupational Health (JOH) (Japan Society of Occupational Health (JSOH))
- TLVs and BEIs (ACGIH: American Conference of Governmental Industrial Hygienists)
package of substances and mixtures, amending and repealing Directives 67/548/EEC
- MAK und BAT Werte Liste (DFG: German Research Foundation)
- TRGS 905, Verzeichnis krebserzeugender, keimzell mutagener oder
reproduktionstoxischer Stoffe (AGS: Committee on Hazardous Substances, Germany)
Ref. 2 - Annex VI of REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT
AND OF THE COUNCIL of 16 December 2008 on classification, labelling and
package of substances and mixtures, amending and repealing Directives 67/548/EEC
- TRGS 905, Verzeichnis krebserzeugender, keimzell mutagener oder
reproduktionstoxischer Stoffe (AGS: Committee on Hazardous Substances, Germany)

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).
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
NIOH: 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).