

1. Product and Company Identification

Name of the product	MP-101 Retarder
Identifier of the product	Sigma MP-101
Uses recommended and restrictions	Retarder
Data of the manufacturer	Sigma Inks (USA) 12800 Brookprinter place, Poway, CA 92064 USA Telephone: (888) 424-9300 Website: www.sigmainks.com Contact to the distributor: www.printexusa.com
Emergency telephone number	Chemtrec (And.Or.): (800) 424-9300 Chemtrec Out: (703) 527-3887 (collect calls)

2. Hazards identification

GHS classification in accordance with 29 CFR 1910.1200

Flammable liquids	:Category 4
Acute toxicity (Oral)	:Category 4
Acute toxicity (Inhalation)	:Category 4
Acute toxicity (Dermal)	:Category 4

GHS label elements

Identification of the substance or mix

MP-101 Retarder

Pictograms



Signal Word

Warning

Hazard Statements

H227 Combustible liquid.
H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements

Prevention:
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face protection.

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

P302 + P352 + P312 IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/ physician if you feel unwell.

P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor.

P363 Wash contaminated clothing before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

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

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

3. Composition/information on ingredients

Ingredients

Chemical name	CAS-No.	Concentration (% w/w)
2-butoxyethyl acetate	112-07-2	90-99 %

4. First aid measures

If inhaled	: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical advice/ attention.
In case of skin contact	: Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Get medical advice/ attention.
In case of eye contact	: In the case of contact with eyes, rinse immediately with plenty of water for 15 minutes and seek medical advice.
If swallowed	: Never give anything by mouth an unconscious person. Seek medical advice.
Most important symptoms and effects, both acute and chronic	: None known.
Notes to physician	: Treat symptomatically

5. Fire-fighting measures

Suitable extinguishing media :Use water spray to extinguish.
 Dry chemical
 Carbon dioxide (CO2)
 Foam

Unsuitable extinguishing media :None known.

Specific hazards during fire fighting :Forms peroxides of unknown stability.

Advise for firefighters :Wear self breathing apparatus for firefighting if necessary

Further information Use water spray to cool unopened containers.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Wear appropriate personal protective equipment.
 Local authorities should be advised if significant spillages cannot be contained.

Environmental precautions : Avoid release to the environment. Do not let product enter drains.

Methods and materials for containment and cleaning up : Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

7. Handling and storage

Advice on safe handling	: Avoid breathing mist or vapors. Avoid contact with skin. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling. Minimize exposure to air.. Periodically test for peroxide formation on long-term storage.
Conditions for safe storage	: Keep container tightly closed in a dry and well-ventilated place.

8. Exposure controls/personal protection

Control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
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2-butoxyethyl acetate	112-07-2	TWA	25 ppm	Eastman Chemical Company occupational exposure limit
		TWA	20 ppm	ACGIH
		TWA	5 ppm 33 mg/m ³	NIOSH REL

Engineering measures : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment

Respiratory protection : Wear respiratory protection. Use respirator and components tested and approved under appropriate government standards

Hand protection : Wear suitable gloves. Dispose contaminated gloves after use in accordance with applicable laws and good laboratory practices.
: Wear suitable gloves.

Eye protection : Wear safety glasses with side shields (or goggles).

9. Physical and chemical properties

Appearance : liquid
Color : colorless
Odor : mild
Odor Threshold : not determined
pH : not determined
Melting point/range : -84.3 °F / -64.6 °C
Boiling point/ range : 367 °F / 186 °C
Flash point : 160 °F / 71 °C
: Method: Tag closed cup
Evaporation rate : 0.03
Self-ignition : 644 °F / 340 °C
: Method: ASTM D2155
Vapor pressure : 0.39 mbar (68 °F / 20 °C)
Relative vapor density : 5.5



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Relative density : 0.94 (68 °F / 20 °C)
Solubility
Water solubility : 1 g/l slightly soluble

Autoignition temperature : not determined

Decomposition temperature : 379 °F / 193 °C
Method: DTA
No exothermic

Viscosity

Viscosity, dynamic : 1.8 mPa.s (68 °F / 20 °C)
Viscosity, kinematic : 1.91 mm²/s (68 °F / 20 °C)

Flammability Explosive Limits : Upper/Lower Explosion
8.54 % (V)
0.88 % (V)

10. Stability and reactivity

Reactivity : Stable
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : Forms peroxides of unknown stability.
Conditions to avoid : Heat, flames and sparks

Incompatible materials : Strong oxidizing agents

Hazardous decomposition products : Carbon dioxide (CO₂)
Carbon monoxide

11. Toxicological information

Acute toxicity

Harmful if swallowed, in contact with skin or if inhaled.

Product:

Acute oral toxicity : Remarks: No data available
Acute inhalation toxicity : Remarks: No data available
Acute dermal toxicity : Remarks: No data available



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Ingredients:

2-butoxyethyl acetate:

Acute oral toxicity : LD50 Oral (Rat, Male and Female): 1,880 mg/kg

Acute inhalation toxicity : LC50 (Rat): 7.82 mg/l, > 450 ppm

Exposure time: 4 h

Test atmosphere: vapor

Remarks: (highest concentration obtainable)

LC50 (Rat): > 4.59 mg/l

Exposure time: 4 h

Test atmosphere: vapor

Acute dermal toxicity : LD50 Dermal (Rabbit): 1,500 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Remarks : No data available

Ingredients:

2-butoxyethyl acetate:

Species : Guinea pig

Exposure time : 72 h

Result : very slight

Serious eye damage/eye

irritation

Not classified based on available information.

Product:

Remarks : No data available

Ingredients:

2-butoxyethyl acetate:

Species : Rabbit

Result : slight

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Product:

Remarks : No data available

Ingredients:

2-butoxyethyl acetate:



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Test Type : Skin Sensitization
Species : Guinea pig
Result : non-sensitizing

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Product:

Remarks : This information is not available.
IARC : No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA : No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP : No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Product:

Effects on fertility : Remarks: No data available

STOT-single exposure

Not classified based on available information.

Product:

Remarks

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Product:

Remarks : No data available

Ingredients:

2-butoxyethyl acetate:

Routes of exposure : Inhalation

Target Organs : Kidney

Aspiration toxicity

Not classified based on available information.

Product:

No data available

Information on likely routes of exposure



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Product:

Inhalation : Remarks: Harmful if inhaled.
Skin contact : Remarks: Harmful in contact with skin.
Eye contact : Remarks: None known.
Ingestion : Remarks: Harmful if swallowed.

12. Ecological information

Ecotoxicity

Ingredients:

2-butoxyethyl acetate:

Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)): 20 - 40 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	EC50 (daphnid): 37 mg/l Exposure time: 48 h
Toxicity to algae	EC50 (Pseudokirchneriella subcapitata (algae)): 1,570 mg/l Exposure time: 72 h

Persistence and degradability

Ingredients:

2-butoxyethyl acetate:

Biodegradability	Concentration: 100 mg/l Biodegradation: 88 % Exposure time: 28 d
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Bioaccumulative potential : No data available

Mobility in soil : No data available

Other adverse effects : No data available

13. Disposal considerations

Disposal methods

Waste from residue : Dispose of in accordance with local regulations.

14. Transport information

International Regulations

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Product name	: MP 101
Pollution category	: Y

Name of the product: MP-101 Retarder
Version: 02 Date of emission: 02/01/2022



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Ship type : 3
Domestic regulation
49 CFR
UN/ID/NA number : NA 1263 Paint related material
Proper shipping name : Combustible liquid, n.o.s.
(2-butoxyethyl acetate)
Class : CBL
Packing group : III
Labels : None
ERG Code : 128
Marine pollutant : No
:

Special precautions for user : **N/A**

15. Regulatory information

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
Acute toxicity (any route of exposure)
Specific target organ toxicity (single or repeated exposure)
SARA 313 : The following components are subject to reporting levels established by SARA
Title III, Section 313:
2-butoxyethyl acetate 112-07-2

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

CH INV : On the inventory, or in compliance with the inventory
DSL : All components of this product are on the Canadian DSL
AICS : On the inventory, or in compliance with the inventory
NZIoC : On the inventory, or in compliance with the inventory
ENCS : On the inventory, or in compliance with the inventory

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ISHL : On the inventory, or in compliance with the inventory
KECI : On the inventory, or in compliance with the inventory
PICCS : On the inventory, or in compliance with the inventory
IECSC : On the inventory, or in compliance with the inventory
TSCA : On TSCA Inventory

16. Other information

Additional information

The information and recommendations in this safety sheet with, to our best know and understand, precise to the date of his expedition. At all the here included will have to be considered to create guarantee, expresses or implicit and will not establish contractual relation legally validates. It is responsibility of the user determine the applicability of this information and the suitability of the material or product for any purpose.