


1. Identification

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

2. Hazards Identification

Classification of the substance or mix	
- Physical dangers	Category 4, Flammable Liquids
- Dangers for the health	Oral acute toxicity (category 4) Acute toxicity inhalation (category 4) Cutaneous acute toxicity (category 4) Acute aquatic toxicity (category 3) Chronic aquatic toxicity (category 3) Toxicity species of white organs – Repeated exposure (category 2, kidney)
Elements of signaling	
- Identification of the substance or mix	Sigma MP-101
- Pictogram of caution	
- Word of warning	Attention
- Code of identification H	H227: Combustible Liquid. H302 + H312 + H332: Harmful in case of ingestion, in contact with the skin or if it inhaled. H373: May cause damage to organs through prolonged or repeated exposure. H412: Harmful to aquatic life with long lasting effects
- Code of identification P	P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P261: Avoid breathing dust/fume/gas/mist/vapours/spray. P264: Wash the 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. P273: Avoid release to the environment. P281: Use personal protective equipment as required. P301 + 312 + P330 IN CASE OF INGESTION Immediately call a POISON CENTER or doctor/physician. P302 + P352 + P312: IN CASE OF CONTACT WITH THE SKIN Wash thoroughly with soap and water.

P304 + P340 + P311 : IN CASE OF INHALATION transport to the victim to fresh air. Call to a poison center or to a doctor/physician.
P363: wash the clothes contaminated before going back it to use.
P370 + P378: In case of fire use dry sand, dry chemical dust or alcohol resistant foam to extinguish.
P403 + P233 : Store in a well ventilated place. Keep the container sealed.
P403 + P235: Store in a well-ventilated place. Keep in a cool place.
P405: Store locked up.
P501: Remove the contents/container in an authorized waste disposal plant.
None are known

Other dangers**3. Composition/information on the components**

Chemical identity of the substance	Common or synonymous name	I number CAS	Impurities and additives	Percentage
2-butoxietil acetate	EB Acetate	112-07-2	10%	90 %

4. First helps

Skin Contact	Remove contaminated clothing. Wash thoroughly with soap and water. If irritation develops, seek medical attention.
Eye contact	Wash affected eyes for at least 15 minutes under running water with eyelids held open. If irritation develops, seek medical attention.
If inhaled	If difficulties occur after vapor/aerosol has been inhaled, remove to fresh air and seek medical attention.
If swallowed	Rinse mouth and then drink plenty of water. Do not induce vomiting. Seek medical attention if necessary.
Acute and chronic symptoms and important effects	The most important symptoms and effects known are described in section 2 and 11.

5. Fire measures

Means of appropriate extinction	Foam Dry chemical product Carbon dioxide (CO ₂)
Means of unsuitable extinction	None are known
Specific dangers of the substance	It forms peroxides of unknown stability
Special measures for firefighting groups	Self-contained breathing equipment for firefighting, and complete protective suit in case of fire.

6. Measures in case of spill or accidental escape

Personal precautions, protective equipment and emergency procedures	Use personal protective clothing. Can release flammable vapors. Wind direction should be noted. Avoid all sources of ignition: heat, sparks, open flame. Use antistatic tools.
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Environmental precautions

Prevent new leaks or spills if it can be done without risk. Do not let product enter the sewer system. Do not discharge into drains/surface waters/groundwater.

Methods and materials for containment and cleaning of spills or leaks

For large amounts: Pump off product.
 For residues: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.

7. Handling and storage

Precautions for safe handle.

Avoid breathe fogs or steams.
 Avoid the contact with the skin.
 Not to test it or swallow it.
 Use only with a good ventilation.
 Wash carefully after the manipulation.
 Reduce to the minimum the exhibition to the air.
 After opening, clean the container with nitrogen before going back to close.
 If it stores on a long-term basis it verifies periodically if it has formed peroxide.

Manipulate it with the cautions of suitable industrial hygiene and respect the practices of security.

Conditions for the safe storage and incompatibilities

It conserves the container hermetic closed in a dry and very ventilated place.

8. Controls of explosion/ personal protection

Control Parameters

Component	No. CAS	Value	Parameter of control	Base
2-butoxietil acetate	112-07-2	VLE-PPT	20 ppm	NOM-010-STPS-2014
		TWA	20 ppm	ACGIH

Appropriate technical controls

It recommends change ten times by hour the volume of air of the area of work. It adapts the ventilation to the instructions for use. Ventilations of local extraction or other controls of engineering can be used to keep the levels airlifted underneath of the limits recommended of exhibition. It establishes limits of exhibition and keep the levels airlifted to an acceptable level.

Measures of individual protection

- **Respiratory protection**
 Carry team of respiratory protection tested and appropriate under the corresponding legal contours.
- **Hand Protection:**
 Use suitable gloves. It inspects the gloves of previous form to his use. It refuses the gloves in concordance with the applicable laws to good practice of laboratory.
- **Eye Protection:**
 Use glasses of security with protective lateral (or goggles).
- **Body Protection:**
 The type of team of protection will be selected agree to the concentration and quantity of the dangerous substance in the specific area of work.

9. Physical and chemical properties

Physical state and appearance	Colourless liquid
Colour	Transparent
Smell	Soft
Threshold of smell	Value no determinate
Hydrogen ptoential, pH	Value no determinate
Melting-point / freezing point	-64.6 °C
Starting point and boiling range	186 °C
Flashpoint	71 °C (Method of enclosed cup Tag)
Evaporation Rate	0.03
Flammability	Value no determinate
Upper/lower limits of flammability or explosiveness	Value no determinate
Vapor Pressure	0.39 mbar (20 °C)
Vapor Density	5.5
Relative density	0.94 (20 °C)
Solubility	1 g/L slightly soluble
Partition coefficient	Value no determinate
Spontaneous ignition temperature	340 °C
Temperature of decomposition	193 °C (Method DTA)
Viscosity	<ul style="list-style-type: none">- Dynamics = 1.8 mPa.s (20 °C)- Cinematic = 1.91 mm²/s (20 °C)
Molecular weight	160.21 g/mole
Other data	It does not present exothermic properties

10. Stability and reactivity

Reactivity	Stable
Chemical stability	Stable in normal conditions.
Possibility of dangerous reactions	It forms peroxides of unknown stability.
Conditions to avoid	Heat, flames, sparks.
Incompatible materials	Agents strong oxidants.
Hazardous Decomposition Products	<ul style="list-style-type: none">- Carbon dioxide (CO₂)- Monoxide of carbon (CO)

11. Toxicological information

Information on probable ways of entry	Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.
Symptoms related with the physical characteristics, chemical and toxicological	Information not available.

Immediate effects, late effects and chronic (by exhibition to short and long term)	Information not available.
Numerical measures of toxicity	
- Acute oral toxicity	DL50 oral (Rat, masculine and feminine): 1,880 mg/Kg
- Acute dermal toxicity	LD50 Dermal (rabbit): 1,500 mg/Kg
- Acute inhalation toxicity	CL50 (Rat): 7.82mg/L > 450 ppm Exhibition: 4hr CL50 (Rat): > 4.59 mg/L Exhibition: 4hr
Interactive effects	Information no available.
Another information	Information no available.
Corrosion/cutaneous irritation:	Very light. - Rabbit – 72 hr.
Grave ocular injuries/ocular irritation	Light. - Guinea pig
Respiratory or cutaneous sensitisation	No sensibility of the skin. - Guinea pig
Mutagenicity in germ cells	Information not available.
Carcinogenicity	Any component of this product presents a greater level or the same to 0.1% that it was identified like likely, possible or confirmed carcinogen human by IARC, NTP And OSHA.
Reproductive toxicity	Information not available.
Specific systematic toxicity – single exposure	No data available.
Specific systematic toxicity – repeated exposures	No data available.
Aspiration Hazard	Damage to the kidney by repeated inhalation.

12. Ecological Information.

Toxicity	<ul style="list-style-type: none">- Toxicity for fish: CL50 (Oncorhynchus mykiss [trout rainbow]): 20 – 40 mg/L- Toxicity for daphnia and other aquatic invertebrates: CE50 (rosebay): 37 mg/L – Exposure 48 h.- Toxicity for seaweeds: CE50 (Pseudokirchneriella subcapita [microalga]): 1,570 mg/L – Exhibition 72 h.
Persistence and Degradability	<ul style="list-style-type: none">- Concentration = 100 mg/L- Biodegradation = 88%- Time of exhibition = 28 d
Potential of bioaccumulation	No information available

Ground mobility No information available.

Other adverse effects No information available.

13. Information on product disposal

Description of the waste Without available data.

Information on safe handling Avoid breathe fogs or steams. Avoid the contact with the skin. Not to test it or swallow it. Use only with a good ventilation. Wash carefully after the manipulation. Reduce to the minimum the exhibition to the air. After opening, clean the container before going back to close. If it stores on a long-term basis, it verify periodically if it has formed peroxide.

Methods of elimination Dispose of in accordance with local regulations.

Disposal of contaminated containers Dispose of in accordance with local regulations.

14. Relative information to the transport

No. UN 1210.

Official definition of transport of the UN Printing ink related material

Class 3

Group of container/packaging III

Environmental hazards No regulated like dangerous commodity.

Special cautions for the user Not applicable.

Bulk transport Not applicable.

15. Regulatory information

Federal Regulations

Federal law for the control of chemical precursors, essential chemical products and scheme to elaborate capsulas, tablets and/or compressed.

Not applicable.

The components of this product appear in the following inventories:

CH INV : In or of compliance with the inventory.
 DSL : All the components of this product are in the Canadian list DSL.
 AICS : In or and compliance with the inventory.
 NZIoC : In or and compliance with the inventory.
 ENCS : In or and compliance with the inventory.
 ISHL : In or and compliance with the inventory.
 KECI : In or and compliance with the inventory.
 PICCS : In or and compliance with the inventory.
 IECSC : In or and compliance with the inventory.
 TSCA : In the Inventory TSCA.

16. Another relative included information to the preparation and update of the leaves of data of security

Additional information

The information and recommendations in this sheet, to our best know and understand, precise to the date of his expedition. At all of 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 in particular.

Date of update

12-jul-2018

Date of next review

No data available.

Version

01

References