Sigma Ink Inc.
12800 Brookprinter Place
Poway Ca, 92064

SAFETY DATA SHEET

1. Product and Company Identification

Name of the product	Adhesive Promoter MP-202
Identifier of the product	Adhesive Promoter MP-202
Uses recommended and restrictions	Adhesion Promoter for impression with pad
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
Number of emergencies	Chemtrec (And.Or.): (800) 424-9300 Chemtrec (Out of And.Or.): (703) 527-3887

2. Hazard Identification

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 3), H226
Acute toxicity, Oral (Category 4), H302
Acute toxicity, Inhalation (Category 4), H332
Acute toxicity, Dermal (Category 4), H312
Skin irritation (Category 2), H315
Serious eye damage (Category 2), H319
Short-term (acute) aquatic hazard (Category 3), H402
Reproductive toxicity (Category 2), H361d

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.1 GHS Label elements, including precautionary statements

Identification of the substance or mix	Adhesive Promoter MP-202
Pictogram	
Signal Word	Danger
Hazard statement(s)	
H226	Flammable liquid and vapor.
H302 + H312 + H332	Harmful if swallowed, in contact with skin or if inhaled.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H402	Harmful to aquatic life.

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/ 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.
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/ vapors/ spray.
P264	Wash skin thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/ eye protection/ face protection.
P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P362	Take off contaminated clothing and wash before reuse.
P370 + P378	In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam to extinguish.
P403 + P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/ container to an approved waste disposal plant.

3. Composition/information on Ingredients

Chemical identity of the substance	Common or synonymous name	Number CAS	Impurities and additives	Percentage
Ethyl 3-etoxipropionato	Propanoic acid, 3-ethoxy-, ethyl ester	763-69-9	-	10-15 %
Cyclohexanone	Cyclohexanone	108-94-1	-	5-18 %
Chlorinated Polypropylene		68442-33-1		15-25%
2-metoxi-1-acetate of methyl ethyl	2-Propanol, 1-methoxy-, acetate	108-65-6	-	6-20 %
Trichloromethane	-	67-66-33		.05-.6%

2.2 Hazards not otherwise classified (HNOC) or not covered by GHS - none

Any concentration shown as a range is due to batch variation

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. Move out of dangerous area.

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.

a. 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

b. Indication of any immediate medical attention and special treatment needed

No data available

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Dry powder Dry sand

Unsuitable extinguishing media

Do NOT use water jet.

a. Special hazards arising from the substance or mixture

Carbon oxides

Combustible.

b. Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

c. Further information

Use water spray to cool unopened containers.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

For personal protection see section 8.

a. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Discharge into the environment must be avoided.

b. Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

c. Reference to other sections

For disposal see section 13.

7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.
Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge.
For precautions see section 2.2.

a. Conditions for safe storage, including any incompatibilities

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.

Storage class (TRGS 510): 3: Flammable liquids

b. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Cyclohexanone	108-94-1	TWA	20 ppm	Limit value (TLV) of ACGIH,USA
		STEL	50 ppm	Limit value (TLV) of ACGIH, USA
		TWA	50 ppm 200 mg/m3	Occupational exposure limits (OSHA), EE.UU. - table Z-1 limits for air contaminates
		TWA	25 ppm 100 mg/m3	Recommended exposure limits NIOSH, EE.UU.
		PEL	25 ppm 100 mg/m3	Chemical Contaminant Exposure Limits Allowed in California (title 8, art 107)
2-methoxy-1-acetate of methyl ethyl	108-65-6	TWA	50 ppm	US WEEL
chloroform (trichloromethane)	67-66-3	TWA	2 ppm 10 mg/m3	Limit value US WES

Biological occupational exposure limits

Component	CAS-No.	Parameters	Value	Biological specimen	Basis
Cyclohexanone	108-94-1	1,2- Cyclohexanediol	80 mg/l	Urine	ACGIH - Biological Exposure Indices (BEI)
	Remarks	End of shift at end of workweek			
		Cyclohexanol	8 mg/l	Urine	ACGIH - Biological Exposure Indices (BEI)
		End of shift (As soon as possible after exposure ceases)			

a. 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

Tightly fitting safety goggles. Face shield (8-inch minimum). 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.

Body Protection

Complete suit protecting against chemicals, 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. Discharge into the environment must be avoided.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state and appearance	Liquid Viscous
Color	Yellow to light brows
Odor	Characteristic
Odor Threshold	Value no determinate
Potential of hydrogenate pH	Value no determinate
Melting point / range	Value no determinate
Ebullition point/ rage	146 °C (295 °F)
Flashpoint	43 °C (109 °F)
Evaporation Rate	Value no determinate
Flammable	It does not apply.
Upper/inferior of inflammable or explosive limits	1.1 % Vol. Inferior

	9.8 % Vol. Upper
Vapor Pressure	5 hPa (4 mmHg) @ 20°C (68 °F)
Vapor Density	Value no determinate
Relative density	0.945-0.965
Density	0.9535 g/cm3 @ 20.0 °C
Solubility	No miscible. Difficult to mix.
Partition Coefficient	Without available data
Auto-ignition Temperature	315 °C (599 °F)
Thermal decomposition	Value no determinate
Viscosity	Value no determinate
Molecular weight	Value no determinate
VOC	45 %
Other data	Not self-ignition material

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.

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - No data available

In the event of fire: see section 5

11. Toxicological information

11.1 Information on toxicological effects

Information on likely routes of entry

Symptoms related to physical, chemical, and toxicological characteristics : No data available

Immediate, delayed, and chronic effects (from short- or long-term exposure) : No data available

Numerical measures of toxicity

Acute oral toxicity :

763-69-9 ethyl 3-ethoxypropionate
LD50- (mouse) – 5000 mg/kg

108-94-1 Cyclohexanone
LD50- (mouse)- 1535 mg/kg

108-65-6 2-methoxy-1-acetate of methyl ethyl
LD50 (mouse) – 8532 mg/kg

Acute skin toxicity :

763-69-9 ethyl 3-ethoxypropionate
LD50- (rabbit) – 4080 mg/kg

108-94-1 Cyclohexanone
LD50- (rabbit)- 948 mg/kg

108-65-6 2-methoxy-1-acetate of methyl ethyl
No data available

Acute inhalation toxicity :

763-69-9 ethyl 3-ethoxypropionate
LC50/ 4h (mouse) – 998 mg/L
LC50/ 96 h (trout) – 67.26 mg/L

108-94-1 Cyclohexanone
LC50- 4 h (mouse)- 8000 mg/L
LC50/ 96 h (trout) – 491.475 mg/L
LC50/ 48 h (daphnia) – 257.42 mg/L

108-65-6 2-methoxy-1-acetate of methyl ethyl

LC50- 4 h (mouse)- 35.7 mg/L
LC50/ 96 h (trout) – 129.92 mg/L
LC50/ 48 h (daphnia) – 316.42 mg/L

Interactive effects	:	No data available
Other information	:	No data available
Skin corrosion / irritation	:	Without effect
Serious eye damage / eye irritation	:	Without effect
Respiratory or skin sensitivity	:	No data available
Germ cell mutagenicity	:	No data available
Carcinogenicity	:	**108-94-1** Cyclohexanone Group 3 – Not classifiable as to its carcinogenicity to humans IARC (International Agency for Research on Cancer) **53710-52-4** Polyvinyl chloride copolymer Group 3 – Not classifiable as to its carcinogenicity to humans IARC (International Agency for Research on Cancer)
Reproductive toxicity	:	No data available
Specific systemic toxicity single exposure	:	No data available
Specific systemic toxicity repeated exposures	:	No data available
Aspiration hazard	:	No data available

12. Ecological information

12.1 Ecotoxicity

Toxicity

763-69-9 ethyl 3-ethoxypropionate
EC50 (daphnia) – 785 mg/L
EC50/ 96 h (green algae) – 75.95 mg/L

108-94-1 Cyclohexanone
EC50/ 96 h (green algae)- 137.349 mg/L

108-65-6 2-methoxy-1-acetate of methyl ethyl
EC50- 96 h (green algae)- 170.43 mg/L

Persistence and degradability No relevant information available
Bio accumulative potential No relevant information available

Mobility in soil	No relevant information available
Other adverse effects	No relevant information available

13. Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. Transport Information

No. UN	1263
Official definition of transport of the UN	Paint related material
Class	3
Group of container/packaging	III
Environmental risks	No applicable.
Special cautions for the user	Caution: Flammable liquid
Transport in Bulk	No applicable.

15. Regulatory information

Disposals specify

SARA 355 (substances extremely dangerous)
None of the ingredients are listed

SARA 313
None of the ingredients are listed

TSCA (Law of Control of Toxic Substances)

763-69-9	Ethyl 3-etoxipropionato
108-94-1	Cyclohexanone
108-65-2	2-metoxy-1-acetate of methyl ethyl

Proposition 65.

Chemists that knows that they cause cancer
None of the ingredients are listed

Chemists that knows that they cause reproductive toxicity in women
None of the ingredients are listed.

Chemists that knows that cause reproductive toxicity in humans
None of the ingredients are Listed.

Chemists that knows that causing developing toxicity
None of the ingredients are listed

Categories cancerogenic

EPA (Agency of environmental Protection)
Any of the ingredients this enlisted.

TLV (Value Limit of Threshold Established by ACGIH)
108-91-1 Cyclohexanone

NIOSH-Ca (National institute for the Health and Labor Security)
Any of the ingredients this enlisted.

16. Another 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.