


SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING
1.1 Product identifier

GHS Product Identifier **SLM-OH III Etching Solution**
 Product Code **SLM-OH III**
 Chemical Name Mixture
 Trade name **SLM-OH III Etching Solution**
 CAS No. Mixture
 EINECS No. Mixture
 REACH Registration No. Not available

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified use(s) Users are recommended to seek further advice.
 Uses advised against Users are recommended to seek further advice.

1.3 Supplier's details

Company Identification **Mitsubishi Imaging (MPM), Inc.**
 Address **555 Theodore Fremd Avenue, Rye, NY 10580 USA**
 Telephone **(914) 925-3200**
 E-Mail (competent person)

1.4 Emergency telephone number – ChemTrec

Emergency Phone No. **(800) 424-9300 (US/Canada), +01 (703) 527-3887 (Elsewhere)**

SECTION 2: HAZARDS IDENTIFICATION
2.1 Classification of the substance or mixture

2.1.1 Regulation (EC) No. 1272/2008 (CLP) – Non-hazardous.
2.1.2 Directive 67/548/EEC & Directive 1999/45/EC – Non-hazardous.

2.2 Label elements
2.2.1 Label elements According to Regulation (EC) No. 1272/2008 (CLP)

GHS Product Identifier (EU)
 Hazard pictogram(s) None
 Signal word(s) None
 Hazard statement(s) None
 Precautionary Statement(s) None

2.2.2 Label elements According to Directive 67/548/EEC & Directive 1999/45/EC

Hazard Symbol None
 Risk Phrases None
 Safety Phrases None

2.3 Other hazards Hazardous under OSHA Hazard Communication Standard (USA)

HMIS: Health-1, Flammability- 1 Reactivity – 1
 GHS Classification (USA): Non hazardous.

WHMIS Classification (Canada): Not WHMIS Controlled.

GHS Classification (Canada): Non hazardous.

2.4 Additional Information

Potential Health Effects
 Inhalation May cause mild respiratory irritation
 Eye Contact Causes mild eye irritation.
 Skin Contact May cause skin irritation.
 Ingestion Product is a possible gastro-intestinal irritant. May be harmful if swallowed.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS
EC Classification No. 1272/2008/EC

Hazardous ingredient(s)	% W/W	CAS No.	EC No.	REACH Registration No.	Hazard pictogram(s) and Hazard statement(s)
Dipropylene Glycol	1-5	25265-71-8	246-770-3	NR	NC Not Classified
Sodium phosphate monobasic	1-5	7558-80-7	231-449-2	NR	NC Not Classified

EC Classification No. 67/548/EEC

Hazardous ingredient(s)	% W/W	CAS No.	EC No.	REACH Registration No.	EC Classification and Risk Phrases
Dipropylene Glycol	1-5	25265-71-8	246-770-3	NR	NC Not Classified
Sodium phosphate monobasic	1-5	7558-80-7	231-449-2	NR	NC Not Classified

3.3 Additional Information

- For full text of H phrases see section 16. For full text of R phrases see section 16. Non-Hazardous ingredients are not listed and make up the balance of the product.

SECTION 4: FIRST AID MEASURES**4.1 Description of first aid measures**

Inhalation Remove patient from exposure. Keep patient at rest and give oxygen if breathing difficult. If symptoms develop, obtain medical attention.

Skin Contact Wash affected skin with soap and water. If symptoms develop, obtain medical attention.

Eye Contact Remove contact lenses. Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. If symptoms develop, obtain medical attention.

Ingestion Do not induce vomiting. Obtain immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Acute: Liquid product is mildly irritant to eyes and skin.
Delayed and chronic effects: Similar to acute exposures.

4.3 Indication of the immediate medical attention and special treatment needed

Treat symptomatically; ingestions may require patient monitoring to include diagnostic testing.

SECTION 5: FIRE-FIGHTING MEASURES**5.1 Extinguishing media**

Suitable Extinguishing Media Non-combustible.

Unsuitable Extinguishing Media None.

5.2 Special hazards arising from the substance or mixture

None.

5.3 Advice for fire-fighters

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Ensure full personal protection during removal of spillages.

6.2 Environmental precautions

None

6.3 Methods and material for containment and cleaning up

Wash small spills to sanitary sewer. Large spills – confine spill, soak up with approved absorbent, shovel product into approved container for disposal.

6.4 Reference to other sections

See Also Section 7, 8, 13.

6.5 Additional Information

None

SECTION 7: HANDLING AND STORAGE**7.1 Precautions for safe handling**

Wear suitable protective clothing and eye/face protection. Avoid contact with eyes. Avoid ingestion.

7.2 Conditions for safe storage, including any incompatibilities

Store at ambient temperatures. Store in a closed container. Store in a well-ventilated place.

Storage Temperature

Ambient temperatures.

Storage Life

Not available.

Incompatible materials

Strong oxidizers, bases.

7.3 Specific end use(s)

Consult the supplier.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note:
Dipropylene Glycol	25265-71-8	NE	NE	NE	NE	None
		NE	NE	NE	NE	None
Sodium phosphate monobasic	7558-80-7	NE	NE	NE	NE	None
		NE	NE	NE	NE	None

8.1.2 Biological limit value - Biological limit values are not available for this product.

8.1.3 PNECs and DNELs - No PNECs and/or DNELs are available for this product.

8.2 Exposure controls

8.2.1 Appropriate engineering controls None required.

8.2.2 Personal protection equipment



Eye/face protection Safety glasses.



Skin protection (Hand protection/ Other) Plastic or synthetic rubber gloves. Wear chemical resistant apron.



Respiratory protection Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely.

Thermal hazards None

8.2.3 Environmental Exposure Controls Adequate ventilation must be used.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Clear Liquid	Color	Colorless
Odour	Odorless	Odour Threshold (ppm)	Not available
Melting Point (°C) / Freezing Point (°C)	Not available	Boiling point/boiling range (°C):	212°F, 100°C
Flash Point (°C)	Not Flammable	Explosive limit ranges	Not available
Auto Ignition Temperature (°C)	Not available	Decomposition Temperature (°C)	Not available
Explosive properties	Not available	Oxidising properties	Not available
Flammability (solid, gas)	Not available	pH (Value)	6.0-7.1 ±0.1
Evaporation rate	<1	Vapour Pressure (mm Hg)	17 mm Hg @ 20°C
Vapour Density (Air=1)	>1	Density (g/ml)	1.130±0.030
Solubility (Water)	Complete	Solubility (Other)	Not available
Partition Coefficient (n-Octanol/water)	Not available	Viscosity (mPa.s)	Not available

9.2 Other information Volatile Organic Compound (VOC) Content: 65 g / L per EPA Method 24 (does not include water). VOC weight %: <10% (calc) per California CARB methodology..

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	None.
10.2 Chemical stability	Stable under normal conditions.
10.3 Possibility of hazardous reactions	Can react violently if in contact with - oxidizers.
10.4 Conditions to avoid	Strong oxidizers.
10.5 Incompatible materials	Strong bases, oxidizers.
10.6 Hazardous Decomposition Product(s)	Oxides of Carbon, Oxides of phosphorous.

SECTION 11: TOXICOLOGICAL INFORMATION

Ingredient	CAS No.	LD ₅₀ (Oral, Rat)	LC ₅₀ (Inhalation, Rat)
Dipropylene glycol	25265-71-8	14,850mg/kg	NE
Sodium phosphate monobasic	7558-80-7	8290 mg / kg	NE

11.1 Information on toxicological effects

11.1.2 Mixtures

Acute toxicity	May be harmful if swallowed. LD ₅₀ (oral, Rat) = 12600 mg/kg.
Irritation	Mild eye irritant, possible skin and respiratory irritant.
Corrosivity	Not to be expected.
Sensitisation	No data.

Repeated dose toxicity	Similar to acute exposures.
Carcinogenicity	No data.
Mutagenicity	No data.
Toxicity for reproduction	No data.

11.2 Other information No data.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	Avoid discharge into bodies of water.
12.2 Persistence and degradability	No data.
12.3 Bioaccumulative potential	No data.
12.4 Mobility in soil	No data.
12.5 Results of PBT and vPvB assessment	No data.
12.6 Other adverse effects	Environmental hazards cannot be excluded by inappropriate handling or disposal.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods	Offer surplus and non-recyclable solutions to a licensed disposal company.
13.2 Additional Information	Contaminated packaging; Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

Land transport (ADR/RID) (a)(b)		Land transport (Within USA) (a)(b)	
UN number	Not hazardous for transport	UN number	Not hazardous for transport
Proper Shipping Name	Not hazardous for transport	Proper Shipping Name	Not hazardous for transport
Transport hazard class(es)	Not hazardous for transport	Transport hazard class(es)	Not hazardous for transport
Packing Group	Not hazardous for transport	Packing Group	Not hazardous for transport
Hazard label(s)	Not hazardous for transport	Hazard label(s)	Not hazardous for transport
Environmental hazards	Not hazardous for transport	Environmental hazards	Not hazardous for transport
Special precautions for user	Not hazardous for transport	Special precautions for user	Not hazardous for transport
Sea transport (IMDG) (a)(b)		Air transport (ICAO/IATA) (a)(b)	
UN number	Not hazardous for transport	UN number	Not hazardous for transport
Proper Shipping Name	Not hazardous for transport	Proper Shipping Name	Not hazardous for transport
Transport hazard class(es)	Not hazardous for transport	Transport hazard class(es)	Not hazardous for transport
Packing Group	Not hazardous for transport	Packing Group	Not hazardous for transport
Marine Pollutant	Not hazardous for transport	Environmental hazards	Not hazardous for transport
Special precautions for user	Not hazardous for transport	Special precautions for user	Not hazardous for transport

(a)– Consult with transport provider.

(b)– Check relevant regulations for Special Provisions.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	
15.1.1 EU regulations	
Authorisations and/or restrictions on use	Consult the supplier.
European Union (EINECS/ELINCS)	Referenced
WGK number	1
15.1.2 National regulations	
USA	
TSCA (Toxic Substance Control Act)	All chemicals listed
SARA 311/312 - Hazard Categories	None
SARA 302 - Extremely Hazardous Substances	Listed – None
SARA 313 - Toxic Chemicals	Listed – None
CERCLA (Comprehensive Environmental Response Compensation and Liability Act)	Listed – None
CAA (Clean Air Act 1990)	Listed – None
CWA (Clean Water Act)	Listed – None
State Right to Know Lists	Listed – NJ, PA (Sodium dihydrogenorthophosphate)
Proposition 65 (California)	Listed – None

Canada

WHMIS Classification

Canada (DSL/NDL)

Canada Ingredient Disclosure List (CIDL)

Not WHMIS Controlled

Listed – DSL

Listed – None

15.2 Chemical Safety Assessment: May be harmful if swallowed. Mild skin and eye irritant.**SECTION 16: OTHER INFORMATION****The following sections contain revisions or new statements: 1-16.****LEGEND**

ACGIH	American Conference of Governmental Industrial Hygienists	NA	not applicable, not available
AICS	Australian Inventory of Chemical Substances	NIOSH	National Institute for Occupational Safety and Health
ANSI	American National Standards Institute	ND	not determined
atm	atmosphere (pressure unit)	NFPA	National Fire Prevention Association
BOD	biological oxygen demand	NTP	National Toxicology Program
CAS	Chemical Abstracts Service	OC	open cup
CC	closed cup	OSHA	Occupational Safety and Health Administration
CDTA	Chemical Drug and Trafficking Act	Part	partition
COC	Cleveland Open Cup	PEL	permissible exposure limits
COD	chemical oxygen demand	ppb	parts per billion
coeff.	coefficient	PPE	personal protective equipment
CFR	Code of Federal Regulations	ppm	parts per million
CPR	cardio-pulmonary resuscitation	psi	pounds per square inch
DEA	Drug Enforcement Agency	RCRA	Resource Conservation and Recovery Act
DOT	Department of Transportation	RQ	Reportable quantity
DSCL	Dangerous Substances Classification and Labeling	RTK	Right to Know
EEC	European Economic Community	SARA	Superfund Amendments and Reauthorization Act
FDA	Food and Drug Administration	STEL	short-term exposure limit
HMS	Hazardous Materials Information System	SUSDP	Standard for the Uniform Scheduling of Drugs and Poisons (Australia)
IARC	International Agency for Research on Cancer	TCC	Tagliabue Closed Cup
IDLH	immediate danger to life or health	TDG	Transportation of Dangerous Goods
kg	kilogram	TPQ	threshold planning quantity
L	liter	TQ	threshold quantity
LC50	median lethal concentration	TSCA	Toxic Substances Control Act
LD50	median lethal dose	TWA	time-weighted average
LEL	lower explosive limit	UEL	upper explosive limit
mg	milligram	WES	Workplace Exposure Standard (New Zealand)
mL	milliliter	WHMIS	Workplace Hazardous Material Information System

References: RTECS, CAS Registry, EINECS/ESIS, *Casarett & Doull's Toxicology*, *Goldfrank's Toxicological Emergencies*, Manufacturer Information**Risk Phrases**

None

Hazard statement(s)

None

Training advice: None**Additional Information: Ingredient names for labeling purposes (CAS #) -** Water (7732-18-5), Dipropylene glycol (25265-71-8), Sodium phosphate monobasic (7558-80-7)

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.