


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

GHS Product Identifier	SDP – EAC II
Product Code	SDP – EAC II
Chemical Name	Mixture, Activator for SDP - Eco System
Trade name	SDP – EAC II
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) – Skin Corrosion 1A, Eye Damage 1, Skin Sensitizer 1 (3.2/1A, 3.3/1, 3.4/1)
2.1.2 Directive 67/548/EEC & Directive 1999/45/EC – Corrosive
2.2 Label elements
2.2.1 Label elements According to Regulation (EC) No. 1272/2008 (CLP)

GHS Product Identifier (EU)

Hazard

pictogram(s)

Signal word(s) **Danger**

Hazard

H314: Causes severe skin burns and eye damage.

statement(s)

H317 May cause an allergic skin reaction.

Precautionary

P280: Wear protective gloves/protective clothing/eye protection/face protection.

Statement(s)

P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P307 + P311: If exposed: Call a POISON CENTRE or doctor/physician.

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

Hazard Symbol



Risk Phrases

R35 Causes severe burns.

R43: May cause sensitization by skin contact.

Safety Phrases

S24/25: Avoid contact with skin and eyes.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S27/28: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of: Cool water.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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

HMIS: Health-2, Flammability- 0 Reactivity – 1

GHS Classification (USA): 3.2/1A, 3.3/1; Corrosive

H314: Causes severe skin burns and eye damage.



P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P307 + P311: If exposed: Call a POISON CENTRE or doctor/physician.

WHMIS Classification (Canada): Class E - Corrosive Material

H314: Causes severe skin burns and eye damage.

P280: Wear protective gloves/protective clothing/eye protection/face protection.



P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P307 + P311: If exposed: Call a POISON CENTRE or doctor/physician.






2.4 Additional Information

Potential Health Effects





Inhalation	May cause severe irritation.
Eye Contact	Causes severe burns.
Skin Contact	Causes severe skin burns.
Ingestion	Causes severe burns. Danger of very serious irreversible effects.

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)
Sodium Hydroxide	1-5	1310-73-2	215-185-5	NA	 3.2/1A, 3.3/1; H314
Potassium Hydroxide	1-5	1310-58-3	215-181-3	NA	  3.1/4, 3.2/1A, 3.3/1; H302, H314,
n-Aminoethyl Ethanolamine	0.1-2.0	111-41-1	203-867-5	NA	  3.2/1B, 3.4/1; H314, H317
Sodium Sulfite	10-15	7757-83-7	231-821-4	NA	None EUH031
Triethylenetetramine-N,N,N',N'',N''',N''''-Hexaacetic Acid, Hexasodium Salt	0.1-2.0	18719-04-5	Not referenced	NA	None None

EC Classification No. 67/548/EEC

Hazardous ingredient(s)	% W/W	CAS No.	EC No.	REACH Registration No.	EC Classification and Risk Phrases
Sodium Hydroxide	1-5	1310-73-2	215-185-5	NA	 C; R35
Potassium Hydroxide	1-5	1310-58-3	215-181-3	NA	 C; R35
n-Aminoethyl Ethanolamine	0.1-2.0	111-41-1	203-867-5	NA	  C, Xn; R34, R43
Sodium Sulfite	10-15	7757-83-7	231-821-4	NA	None R31
Triethylenetetramine-N,N,N',N'',N''',N''''-Hexaacetic Acid, Hexasodium Salt	0.1-2.0	18719-04-5	Not referenced	NA	None None

3.3 Additional Information

- For full text of H/P 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 Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. Obtain immediate medical attention.

Ingestion Do not induce vomiting. Obtain immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed **Acute:** Causes severe damage to eyes and skin. **Delayed and chronic effects:** Similar to acute exposures.

4.3 Indication of the immediate medical attention and special treatment needed Exposure by any route should be treated symptomatically by medical personnel.

SECTION 5: FIRE-FIGHTING MEASURES

- 5.1 Extinguishing media**
Suitable Extinguishing Media Carbon Dioxide, water, water fog, dry chemical, chemical foam.
Unsuitable Extinguishing Media None
- 5.2 Special hazards arising from the substance or mixture** Product is corrosive. Products of combustion include compounds of carbon, hydrogen, oxygen, nitrogen and sulfur, including Carbon Monoxide.
- 5.3 Advice for fire-fighters** A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Keep containers cool with water spray to prevent container rupture due to steam buildup;

SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures** Ensure full personal protection (including respiratory protection) during removal of spillages.
- 6.2 Environmental precautions** Do not let undiluted product enter drains.
- 6.3 Methods and material for containment and cleaning up** Rinse small spills to sewers with copious quantities of water. Confine large spills; either use vacuum gear or inert absorbent such as clay. Keep in suitable, closed containers for disposal. See Also Section 7, 8, 13.
- 6.4 Reference to other sections**
- 6.5 Additional Information** For spills in excess of allowable limits (RQ) notify the National Response Center at (800) 424-8802; refer to SARA Title III, Section 313 40 CFR 372, and CERCLA 40 CFR 302 for detailed instructions concerning reporting requirements.

SECTION 7: HANDLING AND STORAGE

- 7.1 Precautions for safe handling** All employees who handle this material should be trained to handle it safely. Wear suitable protective clothing and eye/face protection. Avoid all contact.
- 7.2 Conditions for safe storage, including any incompatibilities** Attacks many metals. Store at ambient temperatures. Store in a closed container. Store in a well-ventilated place. Keep/store away from: Strong acids, metals.
Storage Temperature Ambient temperatures.
Storage Life Not available. Keep containers properly sealed when not in use.
Incompatible materials Strong acids, metals.
- 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/m³)	STEL (ppm)	STEL (mg/m³)	Note:
Sodium hydroxide	1310-73-2	NE	2 (Ceiling)	NE	NE	OSHA
		NE	2 (Ceiling)	NE	NE	ACGIH
Potassium Hydroxide	1310-58-3	NE	2 (Ceiling)	NE	NE	OSHA
		NE	2 (Ceiling)	NE	NE	ACGIH
n-Aminoethyl Ethanolamine	111-41-1	NE	NE	NE	NE	OSHA
		NE	NE	NE	NE	ACGIH
Sodium sulfite	7757-83-7	NE	NE	NE	NE	OSHA
		NE	NE	NE	NE	ACGIH
Triethylenetetramine-N,N,N',N'',N''',N''''-Hexaacetic Acid, Hexasodium Salt (c)	18719-04-5	NE	NE	NE	NE	OSHA
		NE	NE	NE	NE	ACGIH

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**

Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation.

8.2.2 Personal protection equipment

Eye/face protection

Safety spectacles.



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.

HMIS Personal Protective Equipment Letter Designation C

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES
9.1 Information on basic physical and chemical properties

Appearance	Not available	Colour	Colorless
Odour	Not established	Odour Threshold (ppm)	Not available
Melting Point (°C) / Freezing Point (°C)	Not available	Boiling point/boiling range (°C):	Not available
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)	13.5
Evaporation rate	<1	Vapor Pressure (mm Hg)	NE
Vapour Density (Air=1)	>1	Density (g/ml)	1.083-1.086 @25°C
Solubility (Water)	Complete	Solubility (Other)	Not available
Partition Coefficient (n-Octanol/water)	Not available	Viscosity (mPa.s)	Not specified.

9.2 Other information Volatile Organic Compound (VOC) Content: 45 g / L per EPA Method 24 (does not include water). VOC weight %: <5% (calc) per California CARB methodology.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	Stable
10.2 Chemical stability	Stable under normal conditions.
10.3 Possibility of hazardous reactions	Can react violently if in contact with - strong acids, metals.
10.4 Conditions to avoid	Extreme temperatures
10.5 Incompatible materials	strong acids, metals
10.6 Hazardous Decomposition Product(s)	Oxides of carbon, sulfur, nitrogen , hydrocarbons, fumes, smoke.

SECTION 11: TOXICOLOGICAL INFORMATION

Ingredient	CAS No.	LD ₅₀ (Oral, Rat)	LC ₅₀ (Inhalation, Rat)
Sodium Hydroxide	1310-73-2	No data	No data
Potassium Hydroxide	1310-58-3	273 mg/kg	No data
n-Aminoethyl Ethanolamine	111-41-1	3000 mg/kg	No data
Sodium Sulfite	7757-83-7	3560mg/kg	5500mg/m3
Triethylenetetramine- N,N,N',N'',N''',N''''-Hexaacetic Acid, Hexasodium Salt (c)	18719-04-5	No data	No data

11.1 Information on toxicological effects**11.1.2 Mixtures**

Acute toxicity	Highly corrosive to gastrointestinal tract.
Irritation	Causes severe damage to eyes and skin.
Corrosivity	Corrosive to skin and eyes.
Sensitisation	May cause allergic skin reactions.
Repeated dose toxicity	Similar to acute exposures.
Carcinogenicity	No data
Mutagenicity	No data
Toxicity for reproduction	No data

11.2 Other information None

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	In undiluted form, harmful to aquatic organisms.
12.2 Persistence and degradability	Expected to be biodegradable.
12.3 Bioaccumulative potential	Slight.
12.4 Mobility in soil	Expected to have moderate to high mobility in soils.
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	Do not empty into drains; dispose of this material and its container in a safe way. Send to a licensed recycler, reclaimer or incinerator. Avoid release to the environment. Decontaminate empty containers before recycling.
13.2 Additional Information	None

SECTION 14: TRANSPORT INFORMATION

Land transport (ADR/RID) (a)(c)

UN number	UN 3266
Proper Shipping Name	Corrosive liquid, basic, inorganic, n.o.s.
Transport hazard class(es)	8
Packing Group	III
Hazard label(s)	Corrosive
Environmental hazards	None
Special precautions for user	None

Sea transport (IMDG) (a)(c)

UN number	UN 3266
Proper Shipping Name	Corrosive liquid, basic, inorganic, n.o.s.
Transport hazard class(es)	8
Packing Group	III
Marine Pollutant	No
Special precautions for user	None

Land transport (Within USA) (b)(c)

UN number	UN 3266
Proper Shipping Name	Corrosive liquid, basic, inorganic, n.o.s.
Transport hazard class(es)	8
Packing Group	III
Hazard label(s)	Corrosive
Environmental hazards	None
Special precautions for user	None

Air transport (ICAO/IATA) (a)(c)

UN number	UN 3266
Proper Shipping Name	Corrosive liquid, basic, inorganic, n.o.s.
Transport hazard class(es)	8
Packing Group	III
Environmental hazards	None
Special precautions for user	None

(a)– Consult with transport provider. Full shipping name: Corrosive liquid, basic, inorganic, n.o.s. (Sodium Hydroxide, Potassium Hydroxide, Ethanolamine).

(b)– ORM-D may be applicable within the USA for package sizes less than 30 kg until 2014.

(c)– 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	No Data.

15.1.2 National regulations**USA**

TSCA (Toxic Substance Control Act)	All chemicals listed
SARA 311/312 - Hazard Categories	Acute Health Hazard
SARA 302 - Extremely Hazardous Substances	Listed –None
SARA 313 - Toxic Chemicals	Listed –None
CERCLA (Comprehensive Environmental Response Compensation and Liability Act)	10,000lbs (4,540 kg) RQ as sodium and potassium hydroxide..
CAA (Clean Air Act 1990)	Listed – None.
CWA (Clean Water Act)	Listed – None.
State Right to Know Lists	Listed – MA, NJ, PA
Proposition 65 (California)	Listed – None

Canada

WHMIS Classification	E – Corrosive Material.
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Canada (DSL/NDSL): Triethylenetetramine-N,N,N',N",N""",N""-hexaacetic acid, hexasodium salt (18719-04-5) and 3,6-Dithia-1,8-Octanetriol (5244-34-8) are not listed on the Canadian DSL or NDSL. All other components of this product identified by CAS number are listed.

Canada Ingredient Disclosure List (CIDL) Listed as required.

- 15.2 Chemical Safety Assessment:** Highly corrosive to all tissue. Corrosive to metals. Harmful to aquatic environment in undiluted form.

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
HMIS	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 and Safety Phrases

R21/22: Harmful in contact with skin and if swallowed.

R31 Contact with acids liberates toxic gas.

R34: Causes burns.

R35 Causes severe burns.

R43: May cause sensitization by skin contact.

Hazard statement(s) and Precautionary statement(s)

H302 Harmful if swallowed.

H314: Causes severe skin burns and eye damage..

H317 May cause an allergic skin reaction.

EUH031 Contact with acids liberates toxic gas

Training advice: None

Additional Information: Ingredient names for labeling purposes (CAS #) - Water (7732-18-5), Sodium Hydroxide (1310-73-2), Potassium Hydroxide (1310-58-3), n-Aminoethyl Ethanolamine (111-41-1), Sodium Sulfite (7757-83-7), Triethylenetetramine- N,N,N',N",N""",N""-Hexaacetic Acid, Hexasodium Salt (18719-04-5)

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.