

Issuing Date 01-Aug-2014

Revision Date 01-Aug-2014

Revision Number 0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING**GHS product identifier****Product Name** Aeon Plate Developer**Other means of identification****Product Code(s)** 1A10250 and 1A10252**UN-Number** UN1814**Synonyms** None**Recommended use of the chemical and restrictions on use****Recommended Use** Thermal CtP Developer for Industrial Use**Uses advised against** No information available**Supplier's details****Supplier Address**Presstek LLC
55 Executive Drive
Hudson, NH 03051
Phone: (603) 595-7000**Emergency telephone number****Emergency Telephone Number** Chemtrec 1-800-424-9300**2. HAZARDS IDENTIFICATION****Classification**

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)

Skin Corrosion/Irritation	Category 1
Serious Eye Damage/Eye Irritation	Category 1

GHS Label elements, including precautionary statements**Emergency Overview**

Signal Word	Danger
Hazard Statements	
• Causes severe skin burns and eye damage	

**Appearance** Clear**Physical State** Liquid.**Odor** Slight**Precautionary Statements****Prevention**

- Do not breathe dust/fume/gas/mist/vapors/spray.
- Wash face, hands and any exposed skin thoroughly after handling.
- Wear protective gloves/protective clothing/eye protection/face protection.

General Advice

- Immediately call a POISON CENTER or doctor/physician.
- Specific treatment (see supplemental first aid instructions on this label)

Eyes

- 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 or doctor/physician.

Skin

- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- Wash contaminated clothing before reuse.

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Ingestion

- IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Storage

- Store locked up.

Disposal

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

Hazard Not Otherwise Classified (HNOC)

Not applicable

Other information

1.81265% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade secret
Sodium metasilicate	6834-92-0	1-10	*
Glycerol	56-81-5	1-10	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES**Description of necessary first-aid measures**

Eye Contact	Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Skin Contact	Immediate medical attention is required. Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.
Inhalation	Move to fresh air. If symptoms persist, call a physician.
Ingestion	Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician if necessary

Most important symptoms/effects, acute and delayed

Most Important Symptoms/Effects No information available.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water fog. Foam. Dry chemical. Carbon dioxide (CO₂).

Unsuitable Extinguishing Media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical

No information available.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Evacuate personnel to safe areas. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

Environmental Precautions

Environmental Precautions See Section 12 for additional Ecological Information. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Avoid breathing vapors or mists. Use only in area provided with appropriate exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Do not take internally. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from incompatible materials. Keep container closed when not in use. Keep at temperatures above 5°C / 41°F

Incompatible Products Strong acids.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Glycerol 56-81-5	-	TWA: 15 mg/m ³ mist, total particulate TWA: 5 mg/m ³ mist, respirable fraction (vacated) TWA: 10 mg/m ³ mist, total particulate (vacated) TWA: 5 mg/m ³ mist, respirable fraction	-

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Tightly fitting safety goggles.
Skin and Body Protection Impervious clothing. Impervious gloves.
Respiratory Protection Use only with adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Appearance	Clear
Odor	Slight	Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>
pH	13.4 - 13.6	None known
Melting Point/Range	>100 °C	None known
Boiling Point/Boiling Range	>212 °F	None known
Flash Point	Not applicable.	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
upper flammability limit	No data available	
lower flammability limit	No data available	
Vapor Pressure	No data available	None known
Vapor Density	No data available	None known

Specific Gravity	1.1 g/cm ³	None known
Water Solubility	Easily soluble	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition Temperature	No data available	None known
Decomposition Temperature	No data available	None known
Viscosity	not determined	None known
Flammable Properties	Not flammable	
Explosive Properties	No data available	
Oxidizing Properties	No data available	
<u>Other information</u>		
VOC Content (%)	No data available	

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Incompatible products.

Incompatible materials

Strong acids.

Hazardous decomposition products

Carbon oxides. Smoke

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation

May cause irritation of respiratory tract.

Eye Contact

Causes serious eye damage. Corrosive to the eyes and may cause severe damage including blindness.

Skin Contact

Corrosive. Causes severe skin burns.

Ingestion

Can burn mouth, throat, and stomach.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium metasilicate	= 600 mg/kg (Rat)	-	-
Glycerol	= 12600 mg/kg (Rat)	> 21900 mg/kg (Rat)	-

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Delayed and immediate effects and also chronic effects from short and long term exposure

Sensitization No information available.
Mutagenic Effects No information available.
Carcinogenicity Contains no ingredients above reportable quantities listed as a carcinogen.
Reproductive Toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration Hazard No information available.

Numerical measures of toxicity - Product

Acute Toxicity 1.81265% of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document:

LD50 Oral 7647 mg/kg; Acute toxicity estimate

LD50 Dermal 524551 mg/kg; Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Sodium metasilicate 6834-92-0		LC50 96 h: = 210 mg/L semi-static (Brachydanio rerio) LC50 96 h: = 210 mg/L (Brachydanio rerio)		EC50 96 h: = 216 mg/L (Daphnia magna)
Glycerol 56-81-5		LC50 96 h: 51 - 57 mL/L static (Oncorhynchus mykiss)		EC50 24 h: > 500 mg/L (Daphnia magna)

Persistence and Degradability No information available.

Bioaccumulation

Chemical Name	Log Pow
Glycerol	-1.76

Other Adverse Effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with federal, state, and local regulations

Contaminated Packaging Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT

UN-Number UN1814
Proper shipping name Potassium hydroxide solution
Hazard Class 8
Packing Group II
Description UN1814, Potassium hydroxide solution, 8, II

Emergency Response Guide Number 154

TDG

UN-Number UN1814
Proper Shipping Name Potassium hydroxide solution
Hazard Class 8
Packing Group II
Description UN1814, Potassium hydroxide solution, 8, II

MEX

UN-Number UN1814
Proper Shipping Name Potassium hydroxide solution
Hazard Class 8
Packing Group II
Description UN1814, Potassium hydroxide solution, 8, II

ICAO

UN-Number UN1814
Proper shipping name Potassium hydroxide solution
Hazard Class 8
Packing Group II
Description UN1814, Potassium hydroxide solution, 8, II

IATA

UN-Number UN1814
Proper Shipping Name Potassium hydroxide solution
Hazard Class 8
Packing Group II
ERG Code 8L
Description UN1814, Potassium hydroxide solution, 8, II

IMDG/IMO

UN-Number UN1814
Proper Shipping Name Potassium hydroxide solution
Hazard Class 8
Packing Group II
EmS No. F-A, S-B
Description UN1814, Potassium hydroxide solution, 8, II

RID

UN-Number UN1814
Proper Shipping Name Potassium hydroxide solution
Hazard Class 8
Packing Group II
Classification Code C5
Description UN1814, Potassium hydroxide solution, 8, II

ADR

UN-Number UN1814
Proper Shipping Name Potassium hydroxide solution
Hazard Class 8
Packing Group II
Classification Code C5
Tunnel Restriction Code (E)
Description UN1814, Potassium hydroxide solution, 8, II, (E)

ADN

Proper Shipping Name Potassium hydroxide solution
Hazard Class 8

Packing Group	II
Classification Code	C5
Description	UN1814, Potassium hydroxide solution, 8, II
Limited Quantity	1 L

15. REGULATORY INFORMATION

International Inventories

TSCA Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

"X" designates that the ingredients are listed on the state right to know list.

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Glycerol	X	X			X
Potassium hydroxide	X	X	X		X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA	Health Hazard 3	Flammability 1	Instability 0	Physical and Chemical Hazards - Personal Protection X
HMIS	Health Hazard 3	Flammability 1	Physical Hazard 0	

Prepared By	Product Stewardship 23 British American Blvd. Latham, NY 12110 1-800-572-6501
Issuing Date	01-Aug-2014
Revision Date	01-Aug-2014
Revision Note	Initial Release.

General Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet