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4.2Revision Date:
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70MDGM697328**SECTION 1. IDENTIFICATION****Product identifier**

: AZ Developer

Product number

: 697328

Recommended use of the chemical and restrictions on use

Recommended use : Intermediate for electronic industry

Details of the supplier of the safety data sheet

Company

: EMD Performance Materials Corp., an Affiliate of Merck KGaA,
Darmstadt, Germany, 1200 Intrepid Avenue, Suite 300,
Philadelphia, PA 19112, 1-888-367-3275, www.emd-pm.com

Emergency telephone

: 1-800-424-9300 CHEMTREC (USA)
1-703-741-5970 CHEMTREC (International)
24 Hours/day; 7 Days/week**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Eye irritation

: Category 2A

GHS label elements

Hazard pictograms



Signal Word

: Warning

Hazard Statements

: H319 Causes serious eye irritation.

Precautionary Statements

Prevention:

P264 Wash skin thoroughly after handling.

P280 Wear eye protection/ face protection.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water

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for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.

Other hazards

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity:
3.8679 %

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture
Chemical nature Intermediate for electronic industry

Hazardous ingredients

Chemical name	Concentration (% w/w)	CAS-No.
Disodium metasilicate	>= 1 - <= 5	6834-92-0
tri-sodium phosphate	<= 3	7601-54-9

SECTION 4. FIRST AID MEASURES

Most important symptoms and effects, both acute and delayed : None known.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Product is compatible with standard fire-fighting agents.
Specific hazards during fire fighting : Not combustible.

SECTION 6. ACCIDENTAL RELEASE MEASURES**SECTION 7. HANDLING AND STORAGE**

Precautions for safe handling

Conditions for safe storage, including any incompatibilities

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
tri-sodium phosphate	7601-54-9	STEL	5 mg/m3	US WEEL

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Form	liquid
Color	colorless
Odor	odorless
Odor Threshold	No information available.
pH	ca. 13 at 68 °F (20 °C)
Melting point	No information available.
Boiling point/boiling range	approximately 212 °F (100 °C)
Flash point	Not applicable
Evaporation rate	Note: No data available
Flammability (solid, gas)	Not applicable
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapor pressure	No information available.
Relative vapor density	No data available
Density	approximately 1 g/cm ³ at 68 °F (20 °C)
Relative density	No information available.
Water solubility	No information available.
Partition coefficient: n-octanol/water	No information available.
Autoignition temperature	No information available.
Decomposition temperature	No information available.

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Viscosity, dynamic	approximately 1 mPas at 68 °F (20 °C)
Explosive properties	No information available.
Oxidizing properties	No information available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Corrosive to Metals
Possibility of hazardous reactions	: Reacts with the following substances: Strong oxidizing agents Strong bases
Incompatible materials	: Aluminum Zinc

SECTION 11. TOXICOLOGICAL INFORMATION**Information on toxicological effects****Product**

Carcinogenicity

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Likely route of exposure

Inhalation, Eye contact, Skin contact

Acute oral toxicity

No data available

Skin irritation

Rabbit

Result: No skin irritation

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Eye irritation

Rabbit

Result: Irritating to eyes.

OECD Test Guideline 405

Components

Disodium metasilicate (6834-92-0):

Acute oral toxicity

LD50 Rat: 1,152 mg/kg (ECHA)

Acute dermal toxicity

LD50 Rat: > 5,000 mg/kg

US-EPA (ECHA)

Skin irritation

Rabbit

Result: Corrosive

OECD Test Guideline 404

(ECHA)

Sensitization

Local lymph node assay (LLNA) Mouse

Result: Not a skin sensitizer.

Method: OECD Test Guideline 429

tri-sodium phosphate (7601-54-9):

Acute oral toxicity

LD50 Rat: > 2,000 mg/kg

OECD Test Guideline 420

Acute inhalation toxicity

LC50 Rat: > 0.83 mg/l; 4 h ; dust/mist sodium dihydrogen phosphate

OECD Test Guideline 403

Skin irritation

Result: Skin irritation

Eye irritation

Rabbit

Result: irritating

US-EPA

Sensitization

Sensitization test: Mouse

Result: negative

Method: OECD Test Guideline 429

sodium dihydrogen phosphate

STOT-single exposure

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Assessment: May cause respiratory irritation.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Product****Persistence and degradability**

No information available.

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Components*Disodium metasilicate (6834-92-0):**Toxicity to fish*

semi-static test LC50 Danio rerio (zebra fish): 210 mg/l; 96 h

Analytical monitoring: no

ISO 7346/1 (ECHA)

Toxicity to daphnia and other aquatic invertebrates

static test Daphnia magna (Water flea): 1,700 mg/l; 48 h

Regulation (EC) No. 440/2008, Annex, C.2 (ECHA)

Toxicity to algae

Growth inhibition ErC50 Desmodesmus subspicatus (green algae): > 345.4 mg/l; 72 h

DIN 38412 part 9 (ECHA)

Toxicity to bacteria

Respiration inhibition activated sludge: > 100 mg/l; 3 h

Analytical monitoring: no

OECD Test Guideline 209 (ECHA)

Partition coefficient: n-octanol/water

Not applicable for inorganic substances

*tri-sodium phosphate (7601-54-9):**Toxicity to fish*

semi-static test LC50 Oncorhynchus mykiss (rainbow trout): > 100 mg/l; 96 h

Analytical monitoring: yes

OECD Test Guideline 203

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Toxicity to daphnia and other aquatic invertebrates
static test EC50 Daphnia magna (Water flea): > 100 mg/l; 48 h
Analytical monitoring: yes
OECD Test Guideline 202

Toxicity to algae
static test NOEC Desmodesmus subspicatus (green algae): > 100 mg/l; 72 h
Analytical monitoring: yes
OECD Test Guideline 201

static test EC50 Desmodesmus subspicatus (green algae): > 100 mg/l; 72 h
Analytical monitoring: yes
OECD Test Guideline 201

Biodegradability

The methods for determining the biological degradability are not applicable to inorganic substances.

Partition coefficient: n-octanol/water
Not applicable for inorganic substances

PBT/vPvB: Not applicable for inorganic substances

SECTION 13. DISPOSAL CONSIDERATIONS

RCRA number : RCRA number: D002
Yes -- If it becomes a waste as sold.

SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. REGULATORY INFORMATION**EPCRA - Emergency Planning and Community Right-to-Know****CERCLA Reportable Quantity**

tri-sodium phosphate 7601-54-9 5000lbs

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM/ Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

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The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

tri-sodium phosphate	7601-54-9
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This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations**Massachusetts Right To Know**

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Pennsylvania Right To Know

Disodium metasilicate	6834-92-0
tri-sodium phosphate	7601-54-9

New Jersey Right To Know

Disodium metasilicate	6834-92-0
tri-sodium phosphate	7601-54-9

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

DSL	: This product or its components are listed on or compliant with the DSL.
TSCA	: All components of the product are listed in the TSCA-inventory.

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SECTION 16. OTHER INFORMATION

The information provided in this Material Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.