

Material Safety Data Sheet



Product Name: CTP Positive Plate Developer 3

1. Product Name and Company Identification

Product Name:	CTP Positive Plate Developer 3
Chemical Name/Class:	Water-based plate developer
Synonyms:	Creo part number 090-00005A
Product Use:	Image developer for positive working thermal plates
UN Number:	UN 3266
UN Dangerous Goods	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
Class/Subsidiary Risk:	(Sodium Metasilicate)
Hazchem Code (Australia):	2X
Poisons Schedule Number (Australia):	None allocated
Supplier:	Creo Inc.

Emergency Telephone Number: Infotrac®
North America: 1-800-535-5053
International: +1-352-323-3500

Supplier Address:	Creo Inc. 3700 Gilmore Way Burnaby, BC Canada V5G 4M1
24-Hour Telephone For Information:	Creo Response Center North America: 1-800-472-2727 International: +1-604-451-2727
Fax Number:	+1-604-437-9891

European Distributor:	Creo EMEA S.A.
Address:	Waterloo Office Park Drève Richelle 161 Building E-F B-1410 Waterloo, Belgium
Business Telephone:	+ 32-2-352-2511
Fax Number:	+ 32-2-351-0915

Australian Distributor:	Creo Australia Pty Limited
Address:	466 Victoria Road GladeView Business Park Gladesville NSW 2111 Sydney Australia
Business Telephone:	+ 61-2-9879-4744
Fax Number:	+ 61-2-9879-4845

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2. Composition/Information on Ingredients

Hazardous Ingredients:	WT %	OSHA/PEL	ACGIH/TLV	NIOSH	DFG MAKs	CAS #	EINECS #	ENCS #
Proprietary Modifier	1-5	*NE	*NE	*NE	*NE	Proprietary		
Sodium Metasilicate	5-10	*NE	*NE	*NE	*NE	6834-92-0	229-912-9	1-508
Water and other constituents.	Balance	*NE	*NE	*NE	*NE	7732-18-5	231-791-2	*NE

All other constituents are present at less than 1 percent concentration (0.1% concentration for potential carcinogens, reproductive toxins, respiratory tract sensitizers, and mutagens).

*NE = Not Established.

This MSDS is prepared to the criteria of U.S. Federal OSHA Hazard Communication Standard 29 CFR 1910.1200, Canadian CPR regulations, and European EC Directives, Australian Worksafe regulations and the Japanese Industrial Standard JIS Z 9250:2000.

3. Hazards Identification

Emergency Overview

Appearance:	Pale yellow liquid with a mild odor.
Health Hazards:	Corrosive, including vapors. Burns contaminated skin, eyes, mucous membranes, and any exposed tissues. Severe inhalation or exposure can be fatal.
Flammability Hazards:	Not flammable.
Reactivity Hazards:	Not reactive.
Environmental Hazards:	Adverse effects can result if released.
Emergency Recommendations:	Responders must wear suitable personal protective equipment.

Potential Health Effects

Route of Entry:	Inhalation: Yes Skin: Yes Ingestion: Yes
Eye Contact:	Can cause severe irritation, pain, reddening, watering, and blindness.
Skin Contact:	Acute: Can cause reddening, discomfort, severe irritation, and chemical burns, which can blister and scar skin. Chronic: Repeated skin exposure may cause dermatitis (dry, red skin).
Skin Absorption:	Absorption of product components through intact skin is unknown.
Sensitization Potential:	Product components are not known to be human skin or respiratory sensitizers.
Inhalation:	Acute: Inhaling vapors, mists or sprays can cause breathing difficulty, irritated mucus membranes, coughing, nasal congestion, nose bleeds, and sore throat. Prolonged, chronic, or highly concentrated exposure can damage respiratory system tissues. Severe inhalation can cause chemical pneumonitis, pulmonary edema, and death. Chronic: May cause permanent lung damage after chronic, low-level exposure.
Ingestion:	If swallowed, can severely irritate and burn the mouth, throat, esophagus, and other digestive system tissues on contact. Symptoms include nausea, vomiting, and diarrhea. Ingesting large volumes may be fatal.
Injection:	Not expected to occur under normal use.
Target Organs:	Acute: Skin, eyes, respiratory system. Chronic: Skin, respiratory system.
Carcinogenicity:	NTP: Not listed IARC: Not listed OSHA: Not listed

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4. First Aid Measures

THIS PRODUCT IS CORROSIVE. RESCUERS SHOULD NOT ASSIST VICTIMS EXPOSED TO THIS PRODUCT WITHOUT ADEQUATE PERSONAL PROTECTIVE EQUIPMENT, OR BY THEMSELVES. Victims must receive medical attention. Rescuers should receive medical attention if necessary. Take a copy of the product label and MSDS to the physician or health professional with the contaminated individual.

Eye Contact:	Remove contact lenses at once. Immediately flush eyes with plenty of water for at least 15 minutes. Do not interrupt flushing. Separate eyelids with sterile fingers to assure adequate flushing. Have victim "roll" eyes. Seek medical attention immediately.
Skin Contact:	Remove contaminated clothes and shoes. Rinse skin with plenty of water or shower for a minimum of 15 minutes. Do not interrupt flushing. Take care not to contaminate eyes. Seek medical attention immediately.
Inhalation:	Remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention immediately.
Ingestion:	If swallowed, CALL A PHYSICIAN OR THE POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. DO NOT INDUCE VOMITING UNLESS DIRECTED BY MEDICAL PERSONNEL. Have victim rinse mouth with water. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow . If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. If victim is convulsing, maintain an open airway and obtain medical attention immediately.
Medical Conditions Aggravated by Exposure:	Prolonged exposure can aggravate skin disorders, or respiratory conditions.
Recommendations to Physicians:	Treat symptoms and eliminate exposure. Provide oxygen if necessary. Pulmonary function tests, chest X-rays, and nervous system evaluations may be required. Consulting an ophthalmologist is recommended if eye exposure causes tissue damage.

5. Fire Fighting Measures

Flash Point:	Not flammable.
Flammable (Explosive) Limits:	Not applicable.
Extinguishing Media:	Water fog, carbon dioxide, or dry chemical.
Fire & Explosion Hazards:	Corrosive and a severe contact hazard to firefighters. If involved in fire, can decompose and produce irritating vapors and toxic gases (for example, sodium oxides, silica oxides, carbon oxides, and phosphorus oxides).
Special Fire Fighting Instructions:	Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Chemical resistant clothing may be necessary. Use water spray to cool fire-exposed containers. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas. If necessary, decontaminate fire-response equipment with a neutralizer for bases (for example, citric acid solution) and rinse with water before returning it to service.
NFPA Rating:	Health (blue): 3 Flammability (red): 0 Reactivity (yellow): 0

6. Accidental Release Measures

Spill and Leak Response:	For smaller spills (for example, less than 1 L of liquid from a bottle), wear rubber gloves, splash goggles, and appropriate body protection. Trained personnel following pre-planned procedures should handle larger releases (for example, 10 L of liquid leaking from a crate of several containers). For larger spills, clear the area and protect individuals. Minimum personal protective equipment
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required for larger spills is rubber gloves, rubber boots, face shield, and Tyvek suit. If oxygen level is below 19.5% or unknown, Level B: triple-gloves (rubber gloves and nitrile gloves over latex gloves), chemical resistant suit and boots, hardhat, and Self-Contained Breathing Apparatus are required. Monitoring must show that exposure levels are below those in *Section 2, Composition and Information on Ingredients* and oxygen levels are above 19.5% before anyone is permitted in the area without Self-Contained Breathing Apparatus. Absorb spilled liquid with suitable materials. Neutralize residue with citric acid or other base neutralizing agent. Test area with litmus paper to ensure neutralization is complete. Decontaminate area thoroughly.

Waste Disposal Method: Place all spill residue in appropriate container and seal. Dispose of according to applicable U.S. Federal, State, or local procedures, or appropriate standards of Canada, Australia, EC Member States and those of Japan (see *Section 13, Disposal Considerations*).

7. Handling and Storage

Work and Hygiene Practices: Wash thoroughly after handling. Do not eat, drink, smoke, or apply cosmetics while handling. Avoid breathing vapors or mists. Use in a well-ventilated area. Remove contaminated clothing immediately. All work practices should minimize product release. Work areas should have eyewash stations and safety showers.

Storage and Handling Practices: Train all employees how to handle this product safely. Keep container tightly closed when not in use. Store containers in a cool, dry location above 18°C (64°F), away from direct sunlight and sources of intense heat or cold. Store product in secondary containers or a diked area as appropriate. Use corrosion-resistant structural materials, lighting, and ventilation systems in storage area. Seal floors to prevent absorption. If appropriate, post warning signs in storage and work areas. Store containers away from incompatible chemicals (see *Section 10, Stability and Reactivity*) and have appropriate extinguishing equipment in the area (for example, sprinkler system, portable fire extinguishers). Inspect all incoming containers for damage and proper labeling before storing. Handle empty containers with care because they can contain residual liquid or vapors. Never weld, cut, solder, drill, or perform hot work on empty containers or piping until all liquid, vapors, and residue are cleared.

Protective Practices During Maintenance of Contaminated Equipment: Follow practices described in *Section 6, Accidental Release Measures*. Disconnect all electrical cords during decontamination to avoid electrocution. Collect all rinsates and dispose of according to applicable U.S. Federal, State, or local procedures, or regulations of Canada, Australia, EC Member States, or Japan.

8. Exposure Controls and Personal Protection

Engineering Controls: Use with adequate ventilation to ensure exposure is below limits in *Section 2, Composition and Information on Ingredients*. If necessary, vent material to outside, taking appropriate precautions to prevent environmental contamination. Ensure eyewash/safety shower stations are available near work areas. If necessary, refer to Australian National Code of Practice for the Control of Workplace Hazardous Substances [NOHSC: 2007 (1994)] for further information.

Ventilation: **Local exhaust:** Preferable
Mechanical: Adequate

Personal Protection: **Eyes:** Wear splash goggles or safety glasses if exposure to vapors or sprays of liquid can occur. Refer to relevant regional standards for personal protective equipment.

Skin: Wear butyl rubber gloves. Check gloves for leaks. Use body protection appropriate for task (for example, rubber apron when cleaning equipment, Tyvek suit and rubber boots during non-incident spill response). Use foot protection if injury hazard exists due to falling, rolling, sharp, or electrical objects. Refer to relevant regional standards for personal protective equipment.

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Respiratory System: Use only authorized and properly maintained equipment. Refer to relevant regional standards for personal protective equipment. Oxygen levels below 19.5% are considered Immediately Dangerous to Life or Health. In such conditions, using a full-facepiece pressure/demand Self Contained Breathing Apparatus or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required.

**International
Exposure
Guidelines:**

Not established for any component.

9. Physical and Chemical Properties

Appearance and Odor:	Pale yellow liquid, odorless.
Physical State:	Liquid
Freezing Point:	-3-0°C (26.6-32.0°F)
Boiling Point:	99-104°C (210.2-219.2°F)
Specific Gravity:	1.08
Odour Threshold:	N/E
Vapour Density:	N/E
Vapor Pressure:	17.5 mmHg
Evaporation Rate:	N/E
pH:	12-13
Solubility in Water:	Soluble
Coefficient of water/oil distribution:	N/E

10. Stability and Reactivity

Chemical Stability:	Stable
Conditions to Avoid:	Extremely high temperatures, incompatible chemicals.
Incompatibility (Materials to Avoid):	Strong acids, aluminum, and water reactive materials.
Hazardous Decomposition Products:	If exposed to extremely high temperatures, this product can decompose to generate sodium oxides, silica oxides, carbon oxides, and phosphorus oxides.
Hazardous Polymerization:	Will not occur

11. Toxicology Information

This MSDS provides human toxicological data, LD50 oral-rat and L50 inhalation-rat for components. Additional toxicological data for components are available if needed. Please contact Creo for further information.

RTECS Number:	Sodium Metasilicate: VV927500
Acute Toxicity Data:	Proprietary Modifier: TDLo (unreported, woman) = 1400 mg/kg; Behavioral: toxic psychosis; Lungs, Thorax, or Respiration: respiratory stimulation; Skin and Appendages: sweating TDLo (multiple routes, child) = 2970 mg/kg/13 days; Behavioral: excitement; Gastrointestinal: nausea or vomiting LDLo (oral, human) = 700 mg/kg; Behavioral: excitement, muscle contraction or spasticity; Lungs, Thorax, or Respiration: dyspnea LD ₅₀ (oral, rat) = 930 mg/kg; Behavioral: convulsions or effect on seizure threshold, muscle contraction or spasticity
	Sodium Metasilicate: LD ₅₀ (oral, rat) = 1153 mg/kg

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Irritation Data:	Sodium Metasilicate:	Skin Irritancy (human) = 250 mg/24 hours; Severe
Mutation Data:	Proprietary Modifier:	No human data available. Animal data available, but not listed in this MSDS.
Reproductive Effects Data:		No human data available for components. Animal data available but not listed in this MSDS.
Carcinogenicity Data:		Components of this product are not found on the following lists: U.S. FEDERAL OSHA Z LIST, NTP (National Toxicology Program), IARC (International Agency for Research on Cancer), CALIFORNIA/OSHA; therefore these agencies do not consider or suspect the components to be cancer-causing agents.
Biological Exposure Indices:		Currently, no Biological Exposure Indices (BEIs) are established for components of product.

12. Ecological Information

Environmental Stability:	Relatively stable under ambient environmental conditions. Additional environmental data for product components as follows: Sodium Metasilicate: Solubility: Soluble. Limited information is available on the environmental fate and effects of releasing this material into the environment.
Effect of Material on Plants or Animals:	Harmful or fatal to contaminated plant and animal life, especially if released in large quantities.
Effect of Material on Aquatic Life:	Harmful or fatal to contaminated aquatic plant and animal life, especially if released in large quantities. Significant releases can adversely affect an aquatic system's pH. The following aquatic toxicity data is available for product components: Sodium Metasilicate: LC ₅₀ (Mosquitofish) = 530 mg/L LC ₅₀ (Waterflea) 48 hours = 113 mg/L LC ₅₀ (Scud) 96 hours = 160 mg/L LC ₅₀ (Polychaete) 28 days = 210-250 µg/L TLm (Mosquitofish) 96 hours = 2320 ppm (fresh water)
Degradability:	Sodium Metasilicate: Will persist in aquatic and terrestrial systems.
Log Octanol/Water Partition Coefficient:	Not established.

13. Disposal Considerations

Preparing Wastes For Disposal:	Waste disposal must comply with appropriate U.S. Federal, State, or local procedures or with regulations of Canada, Australia, EC Member States, or Japan. This product, if unaltered by use, may be disposed of by treatment (for chemical bases) at a permitted facility or as advised by your local hazardous waste regulatory authority.
EWC Code:	Not applicable.
U.S. EPA Waste Number:	D002 (Characteristic/Corrosivity) may apply to waste consisting only of this product.

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14. Transport Information

	U.S. DOT	Canadian TC	IATA	IMDG	Australia Road/Rail *	UN ADR/RID
Goods Class:	Hazardous	Dangerous Goods				
Proper Shipping Name:	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate)					
Hazard Class Number and Description:	Class 8					
UN Identification Number:	UN 3266					
Packing Group:	III					
2000 North American Emergency Response Guide Number (US/Canada):	154					
Marine Pollutant Status:	Components are not classified as Marine Pollutants or Potential Marine Pollutants under any jurisdiction.					

* Australian Federal Office of Road Safety Code For The Transportation of Dangerous Goods by Road or Rail

Additional Information is as follows:

Canadian TC

U.S. DOT information from the U.S. 49 CFR regulations can be used for shipments that originate in the U.S. For ground vehicle or rail shipments that originate in Canada, the following additional information is applicable.

Special Provisions:	16
Explosive Limit & Limited Quantity Index:	5
ERAP Index:	Not applicable
Passenger Carrying Ship Index:	Not applicable
Passenger Carrying Road Or Rail Vehicle Index:	5

IMDG

EmS: F-A, S-B

UN ADR/RID

Hazard Identification Number: 80

Australia Federal Office of Road Safety Code For The Transportation of Dangerous Goods by Road or Rail

HazChem Code: 2X
Packaging Code: 3.8.8

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15. Regulatory Information

United States

Product components are not subject to the reporting requirements of:

SARA 302 (40 CFR 355, Appendix A):	Sections 302 of Title III of the Superfund Amendments and Reauthorization Act.
EPA - CERCLA/Superfund, 40CFR 302.4:	Sections 304 of Title III of the Superfund Amendments and Reauthorization Act.
SARA Title III, 313 Chemicals:	Sections 313 of Title III of the Superfund Amendments and Reauthorization Act.

EPA TSCA Inventory:	Product components are listed on the TSCA Inventory.
California Proposition 65:	Product components are not on the State of California Proposition 65 lists of chemicals known to cause cancer, birth defects, or other reproductive harm.

Canada

DSL/NDSL Inventory:	Product components are listed on the Canadian DSL or NDSL inventory.
WHMIS Classification:	E: Corrosive Material

Australia

Inventory of Chemical Substances (AICS):	The Sodium Metasilicate and Proprietary Modifier components of this product are listed on the AICS. Two trace components are not listed.
List of Designated Substances:	Not applicable.
Standard for the Uniform Scheduling of Drugs and Poisons:	Not applicable.

Europe

EINECS/ELINCS Inventory:	Product components are listed on the European EINECS/ELINCS inventory.
EINECS Number:	Sodium Metasilicate: 229-912-9 Modifier: Proprietary
Classification and Labeling:	This product meets the criteria of Corrosive [C], according to current European Community Guidelines.

Japan

ENCS Numbers:	Sodium Metasilicate: 1-508 Modifier: Proprietary Three trace components are not listed.
Poisonous and Deleterious Substances Control Law:	No product component is specified as a Poisonous Substance.

Korea

ECL Numbers:	Sodium Metasilicate: KE-12354 Modifier: Proprietary Two trace components are not listed.
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Harmonized Labeling, Risk and Safety phrases

Region:

Europe

Australia

Korea

Guideline/Regulation:

NOHSC: 10005 (1994)

EU Label:



Classification:

Corrosive. [C].

Risk Phrases:

[R: 34–37] Causes burns. Irritating to the respiratory system.

Safety Phrases:

[S: (2–)13–24/25–36/37/39–45] Keep locked-up and out of reach of children. (This safety phrase can be omitted from the label when the substance or preparation is sold for industrial use only.) Keep away from food, drink and animal feedstuffs. Avoid contact with skin and eyes. Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

16. Other Information

HMIS RATING: Health Hazard: 3 Flammability Hazard: 0 Physical Hazard: 0

MSDS Creation Date: 29 April 2003

Latest Revision Date: 05 September 2003

This MSDS has been prepared in accordance with the criteria set out in U.S. Federal OSHA Hazard Communication Standard 29 CFR 1910.1200, Canadian CPR regulations, and European EC Directives, and the Japanese Industrial Standard JIS Z 9250:2000. The product described in this MSDS should not be used for purposes other than those described in Section 1. As the specific conditions of use of the product described in this MSDS are outside of our control, you are solely responsible for ensuring that you comply with the requirements of all relevant legislation.

The information contained in this MSDS is based on the present state of knowledge and current legislation. Its sole purpose is to provide guidance on health, safety and environmental aspects of the product described in this MSDS and should not be construed as any guarantee of technical performance or suitability for particular applications.

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