SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name: PRIMA DP200R **Product No.:** 000001015847

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

Identified uses: Photographic developer solution
Uses advised against: Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

Manufacturer

Agfa Graphics NV
Septestraat 27
2640 Mortsel
Belgium

Telephone: +32 3 4442111
Fax: +32 3 4447094

E-mail: electronic.sds@agfa.com

National Supplier

Agfa-Gevaert Ltd.
Vantage West
Great West Road
Brentford, Middlesex TW8 9AX
United Kingdom

Telephone: +44 (0)20 8 231 4616
Fax: +44 (0)20 8 231 4951

E-mail: electronic.sds@agfa.com

1.4 Emergency telephone number:

Emergency telephone number (Belgium) : +32 3 4443333 (24h/24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has been classified according to the legislation in force.

Classification according to Regulation (EC) No 1272/2008 as amended.

Physical Hazards		
Corrosive to metals	Category 1	H290: May be corrosive to metals.
Health Hazards		
Skin corrosion	Category 1A	H314: Causes severe skin burns and eye damage.

Serious eye damage	Category 1	H318: Causes serious eye damage.

2.2 Label Elements

Contains: potassium silicate
Potassium hydroxide

Signal Words: Danger

Hazard Statement(s): H290: May be corrosive to metals.
H314: Causes severe skin burns and eye damage.

Precautionary Statements

Prevention: P260: Do not breathe dust/fume/gas/mist/vapors/spray.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response: P310: Immediately call a POISON CENTER/doctor/…
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P301+P330+P331: If swallowed: Rinse mouth. Do NOT induce vomiting.

2.3 Other hazards Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria Not fulfilling vPvB (very persistent/very bioaccummulative) criteria

SECTION 3: Composition/information on ingredients

3.2 Mixtures

General information: No data available.

Chemical name	Concentration	CAS-No.	EC No.	REACH Registration No.	M-Factor:	Notes
potassium silicate	5 - <10%	1312-76-1	215-199-1	01-2119456888-17-0001	No data available.	
Potassium hydroxide	1 - <2%	1310-58-3	215-181-3	01-2119487136-33-XXXX	No data available.	#

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
# # This substance has workplace exposure limit(s).
PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.

Classification

Chemical name	Classification	Notes
potassium silicate	Skin Corr.: 1B: H314 Eye Dam.: 1: H318	
Potassium hydroxide	Skin Corr.: 1A: H314 Eye Dam.: 1: H318 Acute Tox.: 4: H302 Met. Corr.: 1: H290	No data available.

CLP: Regulation No. 1272/2008.

SECTION 4: First aid measures

General: CAUTION! First aid personnel must be aware of own risk during rescue!

4.1 Description of first aid measures

Inhalation: Move to fresh air.

Eye contact: Rinse immediately with plenty of water.

Skin Contact: Remove contaminated clothing and wash the skin thoroughly with soap and water after work.

Ingestion: Rinse mouth thoroughly.

4.2 Most important symptoms and effects, both acute and delayed: See section 11 of the SDS for additional information on health hazards.

4.3 Indication of any immediate medical attention and special treatment needed

Hazards: See section 11 of the SDS for additional information on health hazards.

Treatment: Get medical attention if symptoms occur.

SECTION 5: Firefighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

5.1 Extinguishing media

Suitable extinguishing media: Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

5.2 Special hazards arising from the substance or mixture: During fire, gases hazardous to health may be formed.

5.3 Advice for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Put on protective equipment before entering danger area.

6.2 Environmental Precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages.

6.3 Methods and material for containment and cleaning up: Stop the flow of material, if this is without risk. Absorb with sand or other inert absorbent.

6.4 Reference to other sections: For personal protection see section 8. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling: Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities: Store in corrosive resistant container with a resistant inner liner.

7.3 Specific end use(s): Reserved for industrial and professional use.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational Exposure Limits

Chemical name	type	Exposure Limit Values	Source
Potassium hydroxide	STEL	2 mg/m3	UK. EH40 Workplace Exposure Limits (WELs) (12 2011)

Biological Limit Values

None.

DNEL-Values

Critical component	type	Route of Exposure		Remarks
potassium silicate	Workers	Dermal	1.49 mg/kg	Repeated dose toxicity
	Workers	Inhalation	5.61 mg/m3	Repeated dose toxicity
	General population	Dermal	0.74 mg/kg	Repeated dose toxicity

	General population	Oral	0.74 mg/kg	Repeated dose toxicity
	General population	Inhalation	1.38 mg/m3	Repeated dose toxicity
Potassium hydroxide	Workers	Inhalation	1 mg/m3	Irritating to respiratory system.
	General population	Inhalation	1 mg/m3	Irritating to respiratory system.
Polypropyleeniglykoli	General population	Inhalation	29 mg/m3	Repeated dose toxicity
	Workers	Dermal	84 mg/kg	Repeated dose toxicity
	General population	Dermal	51 mg/kg	Repeated dose toxicity
	General population	Dermal	8.3 mg/kg	Repeated dose toxicity
	Workers	Inhalation	98 mg/m3	Repeated dose toxicity
	Workers	Inhalation	10 mg/m3	Repeated dose toxicity
	General population	Oral	8.3 mg/kg	Repeated dose toxicity
	Workers	Dermal	13.9 mg/kg	Repeated dose toxicity
	General population	Inhalation	10 mg/m3	Repeated dose toxicity
	General population	Oral	24 mg/kg	Repeated dose toxicity
strontium hydroxide	General population	Oral	0.7 mg/kg	Repeated dose toxicity

PNEC-Values

Critical component	Environmental compartment		Remarks
potassium silicate	Aquatic (freshwater)	7.5 mg/l	
	Sewage treatment plant	348 mg/l	
	Aquatic (marine water)	1 mg/l	
	Aquatic (intermit. releases)	7.5 mg/l	
Polypropyleeniglykoli	Aquatic (freshwater)	0.2 mg/l	
	Aquatic (freshwater)	0.1 mg/l	
	Marine sediments	76.5 µg/kg	
	Aquatic (marine water)	0.01 mg/l	
	soil	0.0306 mg/kg	
	freshwater sediment	765 µg/kg	
	Aquatic (marine water)	0.02 mg/l	
	freshwater sediment	0.419 mg/kg	
	Aquatic (intermit. releases)	1.06 mg/l	
	Sewage treatment plant	100 mg/l	
	Aquatic (intermit. releases)	1 mg/l	
	soil	109 µg/kg	
	Marine sediments	0.0419 mg/kg	
strontium hydroxide	freshwater sediment	1781 mg/kg	
	Aquatic (freshwater)	2065 µg/l	
	Sewage treatment plant	4.2 mg/l	
	soil	323.6 mg/kg	

8.2 Exposure controls

Appropriate Engineering Controls: Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

General information:	Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. Follow training instructions when handling this material.
Eye/face protection:	Safety goggles. EN 166.
Skin protection	
Hand Protection:	Protective gloves should be used if there is a risk of direct contact or splash.(EN374) Chemical resistant gloves required for prolonged or repeated contact. Butyl rubber. Glove thickness: > 0.70 mm Break-through time: > 480 min Risk of splashes: Nitrile rubber. Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.
Other:	Safety clothes : long sleeved clothing EN13688
Respiratory Protection:	In case of inadequate ventilation use suitable respirator (EN14387). Seek advice from local supervisor.
Hygiene measures:	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
Environmental Controls:	Do not empty into drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	
Physical state:	liquid
Form:	liquid
Color:	Colorless
Odor:	Odorless
Odor Threshold:	No data available.
pH:	13.7 (25 °C)
Freezing point:	< 0 °C
Boiling Point:	> 100 °C
Flash Point:	No data available.
Evaporation Rate:	Almost no evaporation (20°C).
Flammability (solid, gas):	No data available.
Flammability Limit - Upper (%):	No data available.
Flammability Limit - Lower (%):	No data available.
Vapor pressure:	23.00 hPa (20 °C)

Vapor density (air=1):	No data available.
Relative density:	1.080 (20 °C)
Solubility(ies)	
Solubility in Water:	No data available.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Autoignition Temperature:	No data available.
Decomposition Temperature:	No data available.
Viscosity:	No data available.
Explosive properties:	No data available.
Oxidizing properties:	No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity: Material is stable under normal conditions.

10.2 Chemical Stability: Material is stable under normal conditions.

10.3 Possibility of hazardous reactions: Not known.

10.4 Conditions to avoid: Avoid heat or contamination. Strong acids.

10.5 Incompatible Materials: Attacks metals.

10.6 Hazardous Decomposition Products: None

SECTION 11: Toxicological information

Information on likely routes of exposure

Inhalation: Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.

Ingestion: May be ingested by accident. Ingestion may cause irritation and malaise.

Skin Contact: Causes severe skin burns.

Eye contact: Eye contact is possible and should be avoided. Causes serious eye damage.

11.1 Information on toxicological effects

Acute toxicity

Oral

Product: ATEmix: 23,785.71 mg/kg

Specified substance(s)

potassium silicate	LD 50 (Rat): > 5,000 mg/kg

Potassium hydroxide	LD 50 (Rat): 388 mg/kg LD 50 (Rat): 333 mg/kg

Dermal

Product: Not classified for acute toxicity based on available data.

Specified substance(s)

potassium silicate	LD 50 (Rat): > 5,000 mg/kg
Potassium hydroxide	No data available.

Inhalation

Product: Not classified for acute toxicity based on available data.

Specified substance(s)

potassium silicate	No data available.
Potassium hydroxide	No data available.

Repeated dose toxicity

Product: No data available.

Specified substance(s)

potassium silicate	LOAEL (Mouse(Female, Male), Oral, 90 d): 716 mg/kg
Potassium hydroxide	No data available.

Skin Corrosion/Irritation:

Product: No data available.

Specified substance(s)

potassium silicate	in vivo (Rabbit): Moderately irritating
Potassium hydroxide	in vivo (Rabbit): Corrosive

Serious Eye Damage/Eye Irritation:

Product: No data available.

Specified substance(s)

potassium silicate	in vivo (Rabbit, 24 hrs): Slightly irritating
Potassium hydroxide	in vivo (Rabbit, 24 hrs): Corrosive KOH 5% in vivo (Rabbit, 5 min): Corrosive KOH 5%

Respiratory or Skin Sensitization:

Product: No data available.

Specified substance(s)

potassium silicate	No data available.
Potassium hydroxide	No data available.

Germ Cell Mutagenicity

In vitro

Product:	No data available.

Specified substance(s)

potassium silicate	No data available.
Potassium hydroxide	No data available.

In vivo

Product:	No data available.

Specified substance(s)

potassium silicate	No data available.
Potassium hydroxide	No data available.

Carcinogenicity

Product:	No data available.

Specified substance(s)

potassium silicate	No data available.
Potassium hydroxide	No data available.

Reproductive toxicity

Product:	No data available.

Specified substance(s)

potassium silicate	No data available.
Potassium hydroxide	No data available.

Specific Target Organ Toxicity - Single Exposure

Product:	No data available.

Specified substance(s)

potassium silicate	No data available.
Potassium hydroxide	No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product:	No data available.

Specified substance(s)

potassium silicate	No data available.
Potassium hydroxide	No data available.

Aspiration Hazard

Product:	No data available.

Specified substance(s)

potassium silicate	No data available.
Potassium hydroxide	No data available.

SECTION 12: Ecological information

12.1 Toxicity

Acute toxicity

Fish

Product: No data available.

Specified substance(s)

potassium silicate	LC 50 (Leuciscus idus, 48 h): > 146 mg/l (Static) experimental result
Potassium hydroxide	NOAEL (24 h): 28 mg/l experimental result
	NOAEL (Gambusia affinis, 96 h): 56 mg/l (Static) experimental result
	LC 50 (Gambusia affinis, 96 h): 80 mg/l (Static) experimental result
	LC 50 (Poecilia reticulata, 24 h): 165 mg/l (Static) experimental result

Aquatic Invertebrates

Product: No data available.

Specified substance(s)

potassium silicate	EC 50 (24 h): > 146 mg/l (Static) experimental result
Potassium hydroxide	EC 100 (2 d): > 10 mg/l experimental result

Chronic Toxicity

Fish

Product: No data available.

Specified substance(s)

potassium silicate	No data available.
Potassium hydroxide	No data available.

Aquatic Invertebrates

Product: No data available.

Specified substance(s)

potassium silicate	No data available.
Potassium hydroxide	No data available.

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s)

potassium silicate	No data available.
Potassium hydroxide	No data available.

12.2 Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s)

potassium silicate	No data available.
Potassium hydroxide	No data available.

BOD/COD Ratio

Product	No data available.

Specified substance(s)

potassium silicate	No data available.
Potassium hydroxide	No data available.

12.3 Bioaccumulative potential

Product:	No data available.

Specified substance(s)

potassium silicate	No data available.
Potassium hydroxide	No data available.

12.4 Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

potassium silicate	No data available.
Potassium hydroxide	No data available.

12.5 Results of PBT and vPvB assessment: Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria Not fulfilling vPvB (very persistent/very bioaccummulative) criteria

potassium silicate	No data available.
Potassium hydroxide	No data available.

12.6 Other adverse effects: No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

General information: Disposal considerations (including disposal of contaminated containers or packaging) Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Disposal methods: Wash before disposal. Dispose to controlled facilities.

Since emptied containers retain product residue, follow label warnings even after container is emptied.

SECTION 14: Transport information

ADR

14.1 UN Number:	UN 1719
14.2 UN Proper Shipping Name:	CAUSTIC ALKALI LIQUID, N.O.S.(Potassium silicate)
14.3 Transport Hazard Class(es)	
Class:	8

Label(s):	8
Hazard No. (ADR):	80
Tunnel restriction code:	(E)
14.4 Packing Group:	II
Limited quantity	1.00L
Excepted quantity	E2
14.5 Environmental Hazards:	No
14.6 Special precautions for user:	–

RID

14.1 UN Number:	UN 1719
14.2 UN Proper Shipping Name	CAUSTIC ALKALI LIQUID, N.O.S.(Potassium silicate)
14.3 Transport Hazard Class(es)	
Class:	8
Label(s):	8
14.4 Packing Group:	II
14.5 Environmental Hazards:	No
14.6 Special precautions for user:	–

IMDG

14.1 UN Number:	UN 1719
14.2 UN Proper Shipping Name:	CAUSTIC ALKALI LIQUID, N.O.S.(Potassium silicate)
14.3 Transport Hazard Class(es)	
Class:	8
Label(s):	8
EmS No.:	F-A, S-B
14.4 Packing Group:	II
Limited quantity	1.00L
Excepted quantity	E2
14.5 Environmental Hazards:	Not regulated.
14.6 Special precautions for user:	–

IATA

14.1 UN Number:	UN 1719
14.2 Proper Shipping Name:	Caustic alkali liquid, n.o.s.(Potassium silicate)
14.3 Transport Hazard Class(es):	
Class:	8
Label(s):	8
14.4 Packing Group:	II
Limited quantity	0.50L
Excepted quantity	E2
14.5 Environmental Hazards:	No
14.6 Special precautions for user:	–

Other information

Passenger and cargo aircraft:	Allowed.
Cargo aircraft only:	Allowed.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: not applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

EU Regulations

Regulation (EC) No. 2037/2000 Substances that deplete the ozone layer: none

Regulation (EC) No. 850/2004 on persistent organic pollutants: none

Regulation (EC) No. 689/2008 Import and export of dangerous chemicals: none

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended: none

Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use: none

Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work.: none

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breast feeding.: none

Directive 96/82/EC (Seveso III): on the control of major accident hazards involving dangerous substances: none

EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants: none

Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work:

Chemical name	CAS-No.	Concentration
Potassium hydroxide	1310-58-3	1.0 - 10%

15.2 Chemical safety assessment: No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Revision Information: Not relevant.Not relevant.

Key literature references and sources for data: Safety Data Sheet from the supplier.
ECHA

Wording of the H-statements in section 2 and 3

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

Training information: No data available.

Classification according to Regulation (EC) No 1272/2008 as amended.

Met. Corr. 1, H290

Skin Corr. 1A, H314

Eye Dam. 1, H318

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SDS No.:
Disclaimer: This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.