

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

1.1 Product identifier

Product Name VELOPEX ONE PLUS ONE DEVELOPER

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

Identified Uses X-Ray Developer, Photographic Chemical.

Uses Advised Against

1.3 Details of the supplier of the safety data sheet

Supplier Medivance Instruments Ltd.
Barretts Green Road
Harlesden
London
NW10 7AP
T +44 (0) 20 8965 2913
F +44 (0) 20 8963 1270
enquiries@velopex.com

1.4 Emergency telephone number

020 8965 2913

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (EC 1272/2008)

Serious eye damage/irritation - Category 1
Skin sensitisation - Category 1
Germ cell mutagenicity - Category 2
Carcinogenicity - Category 2

2.2 Label elements

Labelling



Signal Word

Danger

Hazard Statements

H317 May cause an allergic skin reaction
H318 Causes serious eye damage
H341 Suspected of causing genetic defects
H351 Suspected of causing cancer

Precautionary Statements

P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood
P261 Avoid breathing spray
P272 Contaminated work clothing should not be allowed out of the workplace
P280 Wear protective gloves/protective clothing/eye protection
P302+P352 IF ON SKIN: Wash with plenty of water
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
P308+P313 IF exposed or concerned: Get medical advice/attention

Precautionary Statements Cont.	P310	Immediately call a POISON CENTRE or doctor/physician
	P333+P313	If skin irritation or rash occurs: Get medical advice/attention
	P362+P364	Take off contaminated clothing and wash it before reuse
	P405	Store locked up
	P501	Dispose of contents/container to...

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	Weight in Product (% w/w)	EC (EINECS) No.	CLP Classification
Hydroquinone CAS No. 123-31-9	<4.5%	204-617-8	Danger Germ cell mutagenicity Cat.2; H341 Carcinogenicity Cat.2; H351 Serious eye damage Cat.1; H318 Acute aquatic hazard Cat.1; H400 Acute toxicity oral Cat.4; H302 Skin sensitivity Cat.1; H317
Potassium Tetraborate Tetrahydrate CAS No. 12045-78-2	<4.0%	215-575-5	Reproductive toxicity Cat.2; H361d
EDTA Tetrapotassium Salt (Tetrapotassium Ethylenediaminetetraacetate) CAS No. 5964-35-2	<0.4%	227-743-5	Skin irritant Cat.2; H315 Eye irritant Cat.2; H319
4-Methyl-1-Phenyl-3- Pyrazolidone CAS No. 2654-57-1	<0.3%	220-180-6	Acute toxicity Cat.4; H302 Skin sensitivity Cat.1; H317 Chronic aquatic hazard Cat.2; H411

Important Note: The classification descriptions given in this section relate to the components in their pure form and do not correspond to the classification of this preparation. The classification of this product as supplied is given in Section 2.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation

Remove to fresh air and rest. If recovery is not rapid, obtain prompt medical attention.

Ingestion

Do not induce vomiting. Give plenty of water to drink. Beware of aspiration if vomiting occurs. Seek medical attention immediately.

Skin Contact

Remove contaminated clothing. Irrigate with water. Wash with soap/cleanser and rinse with plenty of water. If irritation persists, obtain medical attention.

Eye Contact

Irrigate with water for at least 15 minutes. Get prompt medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation

No significant hazard from product as supplied

Ingestion

May cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Skin Contact

May cause skin irritation and/or dermatitis. May cause sensitisation by skin contact.

Eye Contact

Causes eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Note to physician: Treat symptomatically

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Extinguishing Media	Suitable Extinguishers	Non-flammable material
	Unsuitable Extinguishers	Not applicable

5.2 Special hazards arising from the substance or mixture

Hazardous Combustion Products

Toxic fumes are produced when the product is involved in a fire.

5.3 Advice for firefighters

Protective Measures In Fire

Wear fire retardant clothing/protective suit. Do not breathe decomposition products and fumes. Use approved self contained breathing apparatus

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Wear rubber gloves/eye protection as necessary.

6.2 Environmental precautions

Do not allow spill to enter drains, sewers or water courses.

6.3 Methods and material for containment and cleaning up

Isolate the spillage and absorb with inert material (e.g. sand, earth, diatomaceous earth, vermiculite or absorbent granules). Scoop up and place in a plastic container for disposal according to local/national regulations.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid inhalation of vapour. Ensure adequate ventilation. Avoid skin contact. Avoid eye contact. Wear suitable protective clothing.

7.2 Conditions for safe storage, including any incompatibilities

Store in tightly closed labelled containers. Store in a cool, dry, well ventilated area. Store away from foodstuffs. Store away from oxidizing agents. Keep out of reach of children/store under lock and key. Recommended storage temperature 5-25°C.

7.3 Specific end use(s)

X-Ray developer.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Name	STD	TWA - 8 Hrs	STEL - 15 Min	Notes
HYDROQUINONE	WEL	0.5mg/m ³		

WEL = Workplace Exposure Limit

8.2 Exposure controls

Protective Equipment



Hand Protection

Wear Nitrile rubber gloves.

Eye Protection

Wear approved, tight fitting safety glasses where splashing is probable.

Hygiene Measures

If skin is contaminated, wash off immediately.

Skin Protection

Wear suitable protective clothing as protection against splashing or contamination.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Light yellow liquid	Oxidising Properties	None
Odour	Slight	Vapour Pressure	n/a
pH	10-11	Relative Density	1.17
Boiling Point/range	>100°C	Solubility	Completely soluble in water
Melting Point/range	n/a	Partition Coefficient	n/a
Flash Point	n/a	Miscibility	Completely miscible in water
Flammability	Non-flammable	Vapour Density	n/a
Auto Flammability	n/a	Evaporation Rate	n/a
Explosive Properties	n/a	Viscosity	n/a

n/a = not applicable

9.2 Other information

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reactions known under conditions of normal use.

10.2 Chemical stability

Stable under normal temperature conditions.

10.3 Possibility of hazard reactions

Contact with strong acids may liberate sulphur dioxide.

10.4 Conditions to avoid

Do not freeze. Do not subject to high temperatures.

10.5 Incompatible materials

Materials To Avoid

Oxidising agents, strong acids.

10.6 Hazardous decomposition products

None when stored and handled correctly.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

The information below relates to hydroquinone in its pure form.

Acute Toxicity (Oral LD₅₀) 320mg/kg Rat

Acute Toxicity (Dermal LD₅₀) >4800 mg/kg Rat

Moderate eye irritation

Causes sensitisation on guinea-pigs

Mild skin irritation

Can be absorbed through skin. (1.1 ug/cm²/hr).

Hydroquinone

Negative in bacterial mutagenicity assays. Evidence for mutagenicity (chromosome breakage, sister-chromatid exchanges) in in vivo and in vitro animal studies.

Hydroquinone has been classified as Category 3 mutagen and carcinogen by the European Union based on testing of rats and mice given hydroquinone by stomach tube or at high dietary levels. The International Agency for Research on Cancer (IARC) under ranking for cancer potential has classified hydroquinone in Group 3, i.e. "not classifiable" as a carcinogen. In the EU a Category 3 mutagen attracts the risk phrase R68 "Possible risk of irreversible effects" at concentrations above 1%, and a Category 3 carcinogen attracts the risk phrase R40 "Limited evidence of a carcinogenic effect" at concentrations above 1%.

Hydroquinone Cont. Exposure to products containing such substances should be controlled to below established control limits and special care should be taken with pregnant of breast-feeding women to ensure appropriate controls are in place to control the risk.

Potassium Borate Based on repeated dose ingestion studies in animals, may cause adverse reproductive and developmental effects. However, the doses administered were many times those to which humans would normally be exposed.

Aggravated Medical Conditions

Pre-existing eye disorders, Skin disorders, Respiratory disorders.

Subchronic Toxicity

No data available.

Chronic Toxicity

Effects expected to be similar to those seen acutely.

Sensitisation

This mixture contains hydroquinone which is classified as a dermal sensitiser in some jurisdictions. A very similar mixture was negative in dermal sensitisation studies with and without prior sensitisation to hydroquinone. Based on the results of these studies, this mixture is not expected to present a dermal sensitisation hazard to humans.

Neurological Effects

No information available.

Target Organ Effects

Skin, Eyes, Respiratory system.

CMR Effects

Carcinogenicity

Contains a known or suspected carcinogen.

Mutagenic Effects

Chemical Name	CHS-Germ Cell Mutagenicity	Japan
Hydroquinone	1B	

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Contains a substance which is very toxic to aquatic organisms.

Acute aquatic toxicity product/information

No information available.

Acute aquatic toxicity component information

The information below relates to hydroquinone in it's purest form.

12.1 Toxicity

Toxicity - Fish

0.1-0.18: 96h Pimephales promelas mg/L LC₅₀ static
 0.044: 96h Oncorhynchus mykiss mg/L LC₅₀ flow through
 0.044: 96h Pimephales promelas mg/L LC₅₀ flow through
 0.17: 96h Brachydanio rerio mg/L LC₅₀

Toxicity - Aquatic Invertebrates

0.29: 48h Daphnia magna mg/L EC₅₀

Toxicity - Algae

0.335: 72h Pseudokirchneriella subcapitata mg/L EC₅₀

12.2 Persistence and degradability

Degradability

No information available.

12.3 Bioaccumulative potential

Bioaccumulative Potential

No information available.

Chemical Name	log POW
Hydroquinone	0.5

12.4 Mobility in soil

Mobility

No information available

Ecotoxicological Effects

Remark Very toxic for fish

Additional Ecological information

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water.

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms.

Rinse off of bigger amount into drains or the aquatic environment may lead to increase pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

12.5 Results of PBT and vPvB assessment

Not applicable.

12.6 Other adverse effects

No further relevant information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Do not discharge into drains or watercourses. Dispose of through an authorised contractor to a licensed landfill site. Dispose of in accordance with Local Authority regulations.

Do not reuse empty containers. Dispose of in accordance with local regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

ADR/RID	Not regulated	ADN	Not regulated
IMDG/IMO	Not regulated	TDG	Not regulated
ICAO/IATA	Not regulated		

SECTION 15: REGULATORY INFORMATION

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

EU Legislation

Labelling according to Regulation (EC) No 1272/2008 GHS label elements.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: OTHER INFORMATION

Issued By Chemistry Manager

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Revision GHS1

Hazard Statements In Full

H302	Harmful if swallowed	H341	Suspected of causing genetic defects
H315	Causes skin irritation	H351	Suspected of causing cancer
H317	May cause an allergic skin reaction	H361d	Suspected of damaging the unborn child
H318	Causes serious eye damage	H400	Very toxic to aquatic life
H319	Causes serious eye irritation	H411	Toxic to aquatic life with long lasting effects

Disclaimer

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.