

## Safety Data Sheets

# PowerVision Poly-HRP anti-Mouse IHC Detection System (DPVM-110DAB)

Catalog No: PV6113

<b>SDS</b>	PowerVision Poly-HRP anti-Mouse IgG PowerVision Universal IHC Blocking Diluent PowerVision DAB Substrate Solution PowerVision DAB Chromogen Solution
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### Hyperlinks

[EN](#)

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**SDS Expiry Date: 26 FEB 2021**

**SAFETY DATA SHEET**  
POWERVISION POLY-HRP ANTI-MOUSE IgG

Page: 1

Compilation date: 28 JAN 2020

Revision No: 3

**Section 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

**Product name:** POWERVISION POLY-HRP ANTI-MOUSE IgG

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

**Use of substance / mixture:** Use in laboratories - Professional.

**1.3. Details of the supplier of the safety data sheet**

**Company name:** Leica Biosystems Newcastle Ltd

Balliol Business Park West

Benton Lane

Newcastle Upon Tyne

NE12 8EW

United Kingdom

**Tel:** +44 191 2150567

**Fax:** +44 191 2151152

**Email:** [msds@LeicaBiosystems.com](mailto:msds@LeicaBiosystems.com)

**1.4. Emergency telephone number**

**Emergency tel:** USA and Canada: 1-800-424-9300  
Outside USA and Canada: +1 703-741-5970  
For emergency calls only.

**Section 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification under CLP:** \* Skin Sens. 1A: H317

**Most important adverse effects:** \* May cause an allergic skin reaction.

**2.2. Label elements**

**Label elements:**

**Hazard statements:** \* H317: May cause an allergic skin reaction.

**Hazard pictograms:** \* GHS07: Exclamation mark



**Signal words:** \* Warning

**Precautionary statements:** \* P261: Avoid breathing mist.

\* P272: Contaminated work clothing should not be allowed out of the workplace.

\* P280: Wear protective gloves/protective clothing/eye protection.

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POWERVISION POLY-HRP ANTI-MOUSE IgG

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- \* P302+P352: IF ON SKIN: Wash with plenty of water/soap.
- \* P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
- \* P362+P364: Take off contaminated clothing and wash it before reuse.
- \* P501: Dispose of contents/container in accordance with local/regional/national/international regulation.

## 2.3. Other hazards

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

\* **Hazardous ingredients:** 0.01% 2-methylisothiazol-3(2H)-one.

*EC	*CAS	*PBT / WEL	*CLP Classification	*Percent
*220-239-6	*2682-20-4	–	*Acute Tox. 3 (Oral) H301, Acute Tox. 3 (Dermal) H311, Acute Tox. 2 (Inhalation) H330, Skin Corr. 1B H314, Skin Sens. 1A H317 C $\geq 0.0015\%$ , Eye Dam. 1 H318, STOTS3 H335 (Lungs), Aquatic Acute 1 H400 M-Factor 10, Aquatic Chronic 1 H410 M-Factor 1.	*0.01%

\* **REACH Registration Number:** 01-2120764690-50-XXXX.

Glycerol

*EC	*CAS	*PBT / WEL	*CLP Classification	*Percent
*200-289-5	*56-81-5	–	*Substance with a community workplace exposure limit.	*<1%

\* **REACH Registration Number:** 01-2119471987-XXXX.

## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** \* Remove all contaminated clothes and footwear immediately unless stuck to skin.  
Wash immediately with plenty of soap and water. Consult a doctor.

**Eye contact:** \* Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion:** \* Wash out mouth with water. Consult a doctor.

**Inhalation:** \* Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

### 4.2. Most important symptoms and effects, both acute and delayed

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** \* Delayed effects can be expected after long-term exposure.

### 4.3. Indication of any immediate medical attention and special treatment needed

**Immediate / special treatment:** Not applicable.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** \* Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

[cont...]

# SAFETY DATA SHEET

POWERSVISION POLY-HRP ANTI-MOUSE IgG

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## 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** In combustion emits toxic fumes.

## 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** \* Do not attempt to take action without suitable protective clothing - see section 8 of SDS.  
Turn leaking containers leak-side up to prevent the escape of liquid.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS. Refer to section 13 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** \* Avoid direct contact with the substance. Avoid the formation or spread of mists in the air.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Store in a cool, well ventilated area. Keep container tightly closed.

**Suitable packaging:** Not applicable.

### 7.3. Specific end use(s)

**Specific end use(s):** Use in laboratories - Professional.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

**Workplace exposure limits:**

**\*Hazardous ingredients: Glycerol**

*State	*8 hour TWA	*15 min. STEL	*8 hour TWA	*15 min. STEL
*EU	10 mg/m <sup>3</sup>	–	–	–
*UK	10 mg/m <sup>3</sup>	–	–	–
*IE	10 mg/m <sup>3</sup>	–	–	–
*US	5 mg/m <sup>3</sup> * / 15 mg/m <sup>3</sup> **	–	–	–
*CA	10 mg/m <sup>3</sup>	–	–	–
*AU	10 mg/m <sup>3</sup>	–	–	–
*NZ	10 mg/m <sup>3</sup>	–	–	–

\* respirable dust / \*\* inhalable dust

[cont...]

# SAFETY DATA SHEET

POWERVISION POLY-HRP ANTI-MOUSE IgG

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## DNEL/PNEC Values

### \*2-methylisothiazol-3(2H)-one

Type	Exposure	Value	Population	Effect
DNEL	Inhalation (repeated dose)	21 µg/m <sup>3</sup>	Workers	Local
DNEL	Inhalation (acute/short term)	43 µg/m <sup>3</sup>	Workers	Local
DNEL	Inhalation (repeated dose)	21 µg/m <sup>3</sup>	General Population	Local
DNEL	Inhalation (acute/short term)	43 µg/m <sup>3</sup>	General Population	Local
DNEL	Oral (repeated dose)	27 µg/kg bw/day	General Population	Systemic
DNEL	Oral (acute/short term)	53 µg/kg bw/day	General Population	Systemic

## 8.2. Exposure controls

**Engineering measures:** \* Ensure there is sufficient ventilation of the area.

**Respiratory protection:** Respiratory protection not required.

**Hand protection:** \* Impermeable gloves.

**Eye protection:** Safety glasses. Ensure eye bath is to hand.

**Skin protection:** \* Impermeable protective clothing.

**Environmental:** Prevent from entering public sewers or the immediate environment.

## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**State:** Liquid

**Colour:** Yellow

**Odour:** Odourless

**Evaporation rate:** No data available.

**Oxidising:** No data available.

**Solubility in water:** No data available.

**Viscosity:** No data available.

**Boiling point/range°C:** No data available.

**Melting point/range°C:** No data available.

**Flammability limits %: lower:** No data available.

**upper:** No data available.

**Flash point°C:** No data available.

**Part.coeff. n-octanol/water:** No data available.

**Autoflammability°C:** No data available.

**Vapour pressure:** No data available.

**Relative density:** No data available.

**pH:** No data available.

**VOC g/l:** No data available.

### 9.2. Other information

**Other information:** Not applicable.

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

[cont...]

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POWERVISION POLY-HRP ANTI-MOUSE IgG

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**10.2. Chemical stability**

**Chemical stability:** Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.  
Decomposition may occur on exposure to conditions or materials listed below.

**10.4. Conditions to avoid**

**Conditions to avoid:** Heat.

**10.5. Incompatible materials**

**Materials to avoid:** Strong oxidising agents. Strong acids.

**10.6. Hazardous decomposition products**

**Haz. decomp. products:** In combustion emits toxic fumes.

**Section 11: Toxicological information**

**11.1. Information on toxicological effects**

**\*Hazardous ingredients:**

**\*2-methylisothiazol-3(2H)-one**

DERMAL	RAT	LD50	242	mg/kg
DUST/MIST	RAT	4H LC50	0.1	mg/l
ORAL	RAT	LD50	120	mg/kg

**\*Relevant hazards for product:**

Hazard	Route	Basis
Respiratory/skin sensitisation	-	Hazardous: calculated

**\*Excluded hazards for substance:**

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	-	No hazard: calculated
Acute toxicity (ac. tox. 3)	-	No hazard: calculated
Acute toxicity (ac. tox. 2)	-	No hazard: calculated
Acute toxicity (ac. tox. 1)	-	No hazard: calculated
Skin corrosion/irritation	-	No hazard: calculated
Serious eye damage/irritation	-	No hazard: calculated
Germ cell mutagenicity	-	No hazard: calculated
Carcinogenicity	-	No hazard: calculated
Reproductive toxicity	-	No hazard: calculated

[cont...]

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POWERVERSION POLY-HRP ANTI-MOUSE IgG

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STOT-single exposure	-	No hazard: calculated
STOT-repeated exposure	-	No hazard: calculated
Aspiration hazard	-	No hazard: calculated

## Symptoms / routes of exposure

**Skin contact:** \* There may be irritation and redness at the site of contact.

**Eye contact:** \* There may be irritation and redness. The eyes may water profusely.

**Ingestion:** \* There may be soreness and redness of the mouth and throat.

**Inhalation:** \* Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** \* Delayed effects can be expected after long-term exposure.

**Other information:** Not applicable.

## Section 12: Ecological information

### 12.1. Toxicity

**\*Hazardous ingredients:**

**\*2-methylisothiazol-3(2H)-one**

ALGAE	48H EC50	72.5	µg/l
Freshwater fish	96H LC50	4.77	mg/l
Freshwater invertebrates	48H EC50	934	µg/l
Marine invertebrates	48H EC50	2.98	mg/l

### 12.2. Persistence and degradability

**Persistence and degradability:** Biodegradable.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No bioaccumulation potential.

### 12.4. Mobility in soil

**Mobility:** Readily absorbed into soil.

### 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

### 12.6. Other adverse effects

**Other adverse effects:** Negligible ecotoxicity.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company.

**Recovery operations:** Not applicable.

**Disposal of packaging:** Clean with water. Dispose of as normal industrial waste.

[cont...]

# SAFETY DATA SHEET

POWERVISION POLY-HRP ANTI-MOUSE IgG

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**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

**Transport class:** This product does not require a classification for transport.

## Section 15: Regulatory information

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

**Specific regulations:** \* This safety data sheet has been prepared according to;  
REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on classification, labelling and packaging of substances and mixtures.  
REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

**Other information:** \* indicates text in the SDS which has changed since the last revision.

**\*Sections 8, 11 and 12 data:** Source: European Chemicals Agency, <http://echa.europa.eu>

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.



**SAFETY DATA SHEET**  
POWERSHIELD UNIVERSAL IHC BLOCKING DILUENT

Page: 1

Compilation date: 28 JAN 2020

Revision No: 3

**Section 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

**Product name:** POWERSHIELD UNIVERSAL IHC BLOCKING DILUENT

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

**Use of substance / mixture:** Use in laboratories - Professional.

**1.3. Details of the supplier of the safety data sheet**

**Company name:** Leica Biosystems Newcastle Ltd

Balliol Business Park West

Benton Lane

Newcastle Upon Tyne

NE12 8EW

United Kingdom

**Tel:** +44 191 2150567

**Fax:** +44 191 2151152

**Email:** [msds@LeicaBiosystems.com](mailto:msds@LeicaBiosystems.com)

**1.4. Emergency telephone number**

**Emergency tel:** USA and Canada: 1-800-424-9300  
Outside USA and Canada: +1 703-741-5970  
For emergency calls only.

**Section 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification under CLP:** \* Skin Sens. 1A: H317

**Most important adverse effects:** \* May cause an allergic skin reaction.

**2.2. Label elements**

**Label elements:**

**Hazard statements:** \* H317: May cause an allergic skin reaction.

**Hazard pictograms:** \* GHS07: Exclamation mark



**Signal words:** \* Warning

**Precautionary statements:** \* P261: Avoid breathing mist.

\* P272: Contaminated work clothing should not be allowed out of the workplace.

\* P280: Wear protective gloves/protective clothing/eye protection.

# SAFETY DATA SHEET

POWERVISION UNIVERSAL IHC BLOCKING DILUENT

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- \* P302+P352: IF ON SKIN: Wash with plenty of water/soap.
- \* P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
- \* P362+P364: Take off contaminated clothing and wash it before reuse.
- \* P501: Dispose of contents/container in accordance with local/regional/national/international regulation.

## 2.3. Other hazards

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

\* **Hazardous ingredients:** 0.01% 2-methylisothiazol-3(2H)-one.

*EC	*CAS	*PBT / WEL	*CLP Classification	*Percent
*220-239-6	*2682-20-4	–	*Acute Tox. 3 (Oral) H301, Acute Tox. 3 (Dermal) H311, Acute Tox. 2 (Inhalation) H330, Skin Corr. 1B H314, Skin Sens. 1A H317 C $\geq 0.0015\%$ , Eye Dam. 1 H318, STOTS3 H335 (Lungs), Aquatic Acute 1 H400 M-Factor 10, Aquatic Chronic 1 H410 M-Factor 1.	*0.01%

\* **REACH Registration Number:** 01-2120764690-50-XXXX.

Glycerol

*EC	*CAS	*PBT / WEL	*CLP Classification	*Percent
*200-289-5	*56-81-5	–	*Substance with a community workplace exposure limit.	*<1%

\* **REACH Registration Number:** 01-2119471987-XXXX.

## Section 4: First aid measures

### 4.1. Description of first aid measures

- Skin contact:** \* Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water. Consult a doctor.
- Eye contact:** \* Bathe the eye with running water for 15 minutes. Consult a doctor.
- Ingestion:** \* Wash out mouth with water. Consult a doctor.
- Inhalation:** \* Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

### 4.2. Most important symptoms and effects, both acute and delayed

- Skin contact:** There may be irritation and redness at the site of contact.
- Eye contact:** There may be irritation and redness. The eyes may water profusely.
- Ingestion:** There may be soreness and redness of the mouth and throat.
- Inhalation:** Exposure may cause coughing or wheezing.
- Delayed / immediate effects:** \* Delayed effects can be expected after long-term exposure.

### 4.3. Indication of any immediate medical attention and special treatment needed

**Immediate / special treatment:** Not applicable.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** \* Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

[cont...]

# SAFETY DATA SHEET

POWERSHIELD UNIVERSAL IHC BLOCKING DILUENT

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## 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** In combustion emits toxic fumes.

## 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** \* Do not attempt to take action without suitable protective clothing - see section 8 of SDS.  
Turn leaking containers leak-side up to prevent the escape of liquid.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS. Refer to section 13 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** \* Avoid direct contact with the substance. Avoid the formation or spread of mists in the air.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Store in a cool, well ventilated area. Keep container tightly closed.

**Suitable packaging:** Not applicable.

### 7.3. Specific end use(s)

**Specific end use(s):** Use in laboratories - Professional.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

**Workplace exposure limits:**

**\*Hazardous ingredients: Glycerol**

*State	*8 hour TWA	*15 min. STEL	*8 hour TWA	*15 min. STEL
*EU	10 mg/m <sup>3</sup>	–	–	–
*UK	10 mg/m <sup>3</sup>	–	–	–
*IE	10 mg/m <sup>3</sup>	–	–	–
*US	5 mg/m <sup>3</sup> * / 15 mg/m <sup>3</sup> **	–	–	–
*CA	10 mg/m <sup>3</sup>	–	–	–
*AU	10 mg/m <sup>3</sup>	–	–	–
*NZ	10 mg/m <sup>3</sup>	–	–	–

\* respirable dust / \*\* inhalable dust

[cont...]

# SAFETY DATA SHEET

POWERVISION UNIVERSAL IHC BLOCKING DILUENT

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## DNEL/PNEC Values

### \*2-methylisothiazol-3(2H)-one

Type	Exposure	Value	Population	Effect
DNEL	Inhalation (repeated dose)	21 µg/m <sup>3</sup>	Workers	Local
DNEL	Inhalation (acute/short term)	43 µg/m <sup>3</sup>	Workers	Local
DNEL	Inhalation (repeated dose)	21 µg/m <sup>3</sup>	General Population	Local
DNEL	Inhalation (acute/short term)	43 µg/m <sup>3</sup>	General Population	Local
DNEL	Oral (repeated dose)	27 µg/kg bw/day	General Population	Systemic
DNEL	Oral (acute/short term)	53 µg/kg bw/day	General Population	Systemic

## 8.2. Exposure controls

**Engineering measures:** \* Ensure there is sufficient ventilation of the area.

**Respiratory protection:** Respiratory protection not required.

**Hand protection:** \* Impermeable gloves.

**Eye protection:** Safety glasses. Ensure eye bath is to hand.

**Skin protection:** \* Impermeable protective clothing.

**Environmental:** Prevent from entering public sewers or the immediate environment.

## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**State:** Liquid

**Colour:** Yellow

**Odour:** Odourless

**Evaporation rate:** No data available.

**Oxidising:** No data available.

**Solubility in water:** No data available.

**Viscosity:** No data available.

**Boiling point/range°C:** No data available.

**Melting point/range°C:** No data available.

**Flammability limits %: lower:** No data available.

**upper:** No data available.

**Flash point°C:** No data available.

**Part.coeff. n-octanol/water:** No data available.

**Autoflammability°C:** No data available.

**Vapour pressure:** No data available.

**Relative density:** No data available.

**pH:** No data available.

**VOC g/l:** No data available.

### 9.2. Other information

**Other information:** Not applicable.

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

[cont...]

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POWERSION UNIVERSAL IHC BLOCKING DILUENT

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## 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions.

## 10.3. Possibility of hazardous reactions

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.  
Decomposition may occur on exposure to conditions or materials listed below.

## 10.4. Conditions to avoid

**Conditions to avoid:** Heat.

## 10.5. Incompatible materials

**Materials to avoid:** Strong oxidising agents. Strong acids.

## 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

**\*Hazardous ingredients:**

**\*2-methylisothiazol-3(2H)-one**

DERMAL	RAT	LD50	242	mg/kg
DUST/MIST	RAT	4H LC50	0.1	mg/l
ORAL	RAT	LD50	120	mg/kg

**\*Relevant hazards for product:**

Hazard	Route	Basis
Respiratory/skin sensitisation	-	Hazardous: calculated

**\*Excluded hazards for substance:**

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	-	No hazard: calculated
Acute toxicity (ac. tox. 3)	-	No hazard: calculated
Acute toxicity (ac. tox. 2)	-	No hazard: calculated
Acute toxicity (ac. tox. 1)	-	No hazard: calculated
Skin corrosion/irritation	-	No hazard: calculated
Serious eye damage/irritation	-	No hazard: calculated
Germ cell mutagenicity	-	No hazard: calculated
Carcinogenicity	-	No hazard: calculated
Reproductive toxicity	-	No hazard: calculated

[cont...]

# SAFETY DATA SHEET

POWERSION UNIVERSAL IHC BLOCKING DILUENT

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STOT-single exposure	-	No hazard: calculated
STOT-repeated exposure	-	No hazard: calculated
Aspiration hazard	-	No hazard: calculated

## Symptoms / routes of exposure

**Skin contact:** \* There may be irritation and redness at the site of contact.

**Eye contact:** \* There may be irritation and redness. The eyes may water profusely.

**Ingestion:** \* There may be soreness and redness of the mouth and throat.

**Inhalation:** \* Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** \* Delayed effects can be expected after long-term exposure.

**Other information:** Not applicable.

## Section 12: Ecological information

### 12.1. Toxicity

**\*Hazardous ingredients:**

**\*2-methylisothiazol-3(2H)-one**

ALGAE	48H EC50	72.5	µg/l
Freshwater fish	96H LC50	4.77	mg/l
Freshwater invertebrates	48H EC50	934	µg/l
Marine invertebrates	48H EC50	2.98	mg/l

### 12.2. Persistence and degradability

**Persistence and degradability:** Biodegradable.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No bioaccumulation potential.

### 12.4. Mobility in soil

**Mobility:** Readily absorbed into soil.

### 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

### 12.6. Other adverse effects

**Other adverse effects:** Negligible ecotoxicity.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company.

**Recovery operations:** Not applicable.

**Disposal of packaging:** Clean with water. Dispose of as normal industrial waste.

[cont...]

# SAFETY DATA SHEET

POWERVERSION UNIVERSAL IHC BLOCKING DILUENT

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**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

**Transport class:** This product does not require a classification for transport.

## Section 15: Regulatory information

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

**Specific regulations:** \* This safety data sheet has been prepared according to;  
REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on classification, labelling and packaging of substances and mixtures.  
REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

**Other information:** \* indicates text in the SDS which has changed since the last revision.

**\*Sections 8, 11 and 12 data:** Source: European Chemicals Agency, <http://echa.europa.eu>

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

**SAFETY DATA SHEET**  
POWERSVISION DAB SUBSTRATE SOLUTION

Page: 1

Compilation date: 20/MAR/2018

Revision No: 2

**Section 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

**Product name:** POWERSVISION DAB SUBSTRATE SOLUTION

**REACH Registration Number:** Registration numbers are not available for some or all of the substance ingredients of this mixture as the substance(s) or its uses are exempt from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

**Use of substance / mixture:** Use in laboratories - Professional.

**1.3. Details of the supplier of the safety data sheet**

**Company name:** Leica Biosystems Newcastle Ltd  
Balliol Business Park West  
Benton Lane  
Newcastle Upon Tyne  
NE12 8EW  
United Kingdom

**Tel:** +44 191 2150567

**Fax:** +44 191 2151152

**Email:** [msds@LeicaBiosystems.com](mailto:msds@LeicaBiosystems.com)

**1.4. Emergency telephone number**

**Emergency tel:** USA and Canada: 1-800-424-9300  
Outside USA and Canada: +1 703-741-5970  
For emergency calls only.

**Section 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification under CLP:** Skin Irrit. 2: H315; Eye Irrit. 2: H319

**Most important adverse effects:** Causes skin irritation. Causes serious eye irritation.

**2.2. Label elements**

**Label elements under CLP:**

**Hazard statements:** H315: Causes skin irritation.  
H319: Causes serious eye irritation.

**Signal words:** Warning

**Hazard pictograms:** GHS07: Exclamation mark



[cont...]



# SAFETY DATA SHEET

## POWERVERSION DAB SUBSTRATE SOLUTION

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**Precautionary statements:** P264: Wash hands thoroughly after handling.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.  
P332 + P313: If skin irritation occurs: Get medical advice/attention.  
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313: If eye irritation persists: Get medical advice/attention.  
P362: Take off contaminated clothing and wash before reuse.

### 2.3. Other hazards

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous ingredients:

ACETIC ACID

EINECS	CAS	REACH Registration Number	CLP Classification	Percent
200-580-7	64-19-7	Not Applicable	Flam. Liq. 3: H226; Skin Corr. 1A: H314	10-30%

#### Non-classified ingredients:

HYDROGEN PEROXIDE SOLUTION

EINECS	CAS	REACH Registration Number	CLP Classification	Percent
231-765-0	7722-84-1	Not Applicable	Ox. Liq. 1: H271; Acute Tox. 4: H332; Acute Tox. 4: H302; Skin Corr. 1A: H314	<1%

## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.

**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion:** Wash out mouth with water. Consult a doctor.

**Inhalation:** Move to fresh air in case of accidental inhalation of vapours. Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

### 4.2. Most important symptoms and effects, both acute and delayed

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

[cont...]

# SAFETY DATA SHEET

## POWERVERSION DAB SUBSTRATE SOLUTION

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**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

### 4.3. Indication of any immediate medical attention and special treatment needed

**Immediate / special treatment:** Eye bathing equipment should be available on the premises.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used.

### 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** In combustion emits toxic fumes.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** Refer to section 8 of SDS for personal protection details. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS. Refer to section 13 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed.

**Suitable packaging:** Not applicable.

### 7.3. Specific end use(s)

**Specific end use(s):** Use in laboratories - Professional.

[cont...]

**SAFETY DATA SHEET**  
POWERVERSION DAB SUBSTRATE SOLUTION

**Section 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Workplace exposure limits**

**Hazardous ingredients: ACETIC ACID**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
EU	25 mg/m <sup>3</sup>	-	-	-
UK	25 mg/m <sup>3</sup>	37 mg/m <sup>3</sup>	-	-
IE	25 mg/m <sup>3</sup>	37 mg/m <sup>3</sup>	-	-
US	25 mg/m <sup>3</sup>	37 mg/m <sup>3</sup>	-	-
CA	25 mg/m <sup>3</sup>	37 mg/m <sup>3</sup>	-	-
AU	25 mg/m <sup>3</sup>	37 mg/m <sup>3</sup>	-	-
NZ	25 mg/m <sup>3</sup>	37 mg/m <sup>3</sup>	-	-

**Non-classified ingredients: HYDROGEN PEROXIDE SOLUTION**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	1.4 mg/m <sup>3</sup>	2.8 mg/m <sup>3</sup>	-	-
IE	1.5 mg/m <sup>3</sup>	3 mg/m <sup>3</sup>	-	-
US	1.4 mg/m <sup>3</sup>	-	-	-
CA	1.4 mg/m <sup>3</sup>	-	-	-
AU	1.4 mg/m <sup>3</sup>	-	-	-

**DNEL/PNEC Values**

**Hazardous ingredients: ACETIC ACID**

Type	Exposure	Value	Population	Effect
DNEL	Inhalation (repeated dose)	25 mg/m <sup>3</sup>	Workers	Local
DNEL	Inhalation	25 mg/m <sup>3</sup>	Workers	Local

**Non-classified ingredients: HYDROGEN PEROXIDE SOLUTION**

Type	Exposure	Value	Population	Effect
DNEL	Inhalation (repeated dose)	1.4 mg/m <sup>3</sup>	Workers	Local
DNEL	Inhalation	3 mg/m <sup>3</sup>	Workers	Local

**8.2. Exposure controls**

**Engineering measures:** Ensure there is sufficient ventilation of the area.

**Respiratory protection:** Respiratory protection must be available in case of emergency.

**Hand protection:** Protective gloves.

**Eye protection:** Safety glasses with side-shields. Ensure eye bath is to hand.

**Skin protection:** Protective clothing.

**Environmental:** Prevent from entering in public sewers or the immediate environment.

**Section 9: Physical and chemical properties**

**SAFETY DATA SHEET**  
POWERVERSION DAB SUBSTRATE SOLUTION

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**9.1. Information on basic physical and chemical properties**

**State:** Liquid  
**Colour:** Colourless  
**Odour:** Pungent  
**Evaporation rate:** No data available.  
**Oxidising:** No data available.  
**Solubility in water:** No data available.  
**Viscosity:** No data available.  
**Boiling point/range°C:** No data available.  
**Flammability limits %: lower:** No data available.  
**Flash point°C:** No data available.  
**Autoflammability°C:** No data available.  
**Relative density:** No data available.  
**VOC g/l:** No data available.  
**Melting point/range°C:** No data available.  
**upper:** No data available.  
**Part.coeff. n-octanol/water:** No data available.  
**Vapour pressure:** No data available.  
**pH:** 4.6

**9.2. Other information**

**Other information:** Not applicable.

**Section 10: Stability and reactivity**

**10.1. Reactivity**

**Reactivity:** Stable under recommended transport or storage conditions.

**10.2. Chemical stability**

**Chemical stability:** Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.  
Decomposition may occur on exposure to conditions or materials listed below.

**10.4. Conditions to avoid**

**Conditions to avoid:** Heat.

**10.5. Incompatible materials**

**Materials to avoid:** Strong oxidising agents. Strong acids.

**10.6. Hazardous decomposition products**

**Haz. decomp. products:** In combustion emits toxic fumes.

**Section 11: Toxicological information**

**11.1. Information on toxicological effects**

**Relevant effects for mixture:**

Effect	Route	Basis
Irritation	OPT DRM	Hazardous: calculated

[cont...]

**SAFETY DATA SHEET**  
POWERVERSION DAB SUBSTRATE SOLUTION

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**Excluded effects for mixture:**

Effect	Route	Basis
Acute toxicity (harmful)	-	Based on available data the classification criteria are not met
Acute toxicity (toxic)	-	Based on available data the classification criteria are not met
Acute toxicity (very toxic)	-	Based on available data the classification criteria are not met
Corrosivity	-	Based on available data the classification criteria are not met
Sensitisation	-	Based on available data the classification criteria are not met
Repeated dose toxicity	-	Based on available data the classification criteria are not met
Carcinogenicity	-	Based on available data the classification criteria are not met
Mutagenicity	-	Based on available data the classification criteria are not met
Toxicity for reproduction	-	Based on available data the classification criteria are not met

**Symptoms / routes of exposure**

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

**Other information:** Not applicable.

**Section 12: Ecological information**

**12.1. Toxicity**

**Ecotoxicity values:** No data available.

**12.2. Persistence and degradability**

**Persistence and degradability:** Biodegradable.

**12.3. Bioaccumulative potential**

**Bioaccumulative potential:** No bioaccumulation potential.

**12.4. Mobility in soil**

**Mobility:** Readily absorbed into soil.

**12.5. Results of PBT and vPvB assessment**

**PBT identification:** This product is not identified as a PBT/vPvB substance.

[cont...]

**SAFETY DATA SHEET**  
POWERSION DAB SUBSTRATE SOLUTION

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**12.6. Other adverse effects**

**Other adverse effects:** Negligible ecotoxicity.

**Section 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company.

**Recovery operations:** Not applicable.

**Disposal of packaging:** Arrange for collection by specialised disposal company.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

**Section 14: Transport information**

**Land (ADR/RID):** Regulated for transport by land.

**Sea (IMDG):** Regulated for transport by sea.

**Air (IATA):** Regulated for transport by air.

**Inland Waterways (ADNR/AND):** Regulated for transport by inland waterways.

In relation to transport, the following information is applicable;

**14.1. UN number**

**UN number:** UN2790

**14.2. UN proper shipping name**

**Shipping name:** ACETIC ACID, SOLUTION

**14.3. Transport hazard class(es)**

**Transport class:** 8



**14.4. Packing group**

**Packing group:** III

**14.5. Environmental hazards**

**Environmentally hazardous:** No

**Marine pollutant:** No

**14.6. Special precautions for user**

**Special precautions:** No special precautions.

**Tunnel code:** (E)

**Transport category:** 3

[cont...]

# SAFETY DATA SHEET

POWERVERSION DAB SUBSTRATE SOLUTION

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## Section 15: Regulatory information

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

**Specific regulations:** This safety data sheet has been prepared according to;

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on classification, labelling and packaging of substances and mixtures.

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

**Other information:** \* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and s.3:** H226: Flammable liquid and vapour.

H271: May cause fire or explosion; strong oxidiser.

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

**SAFETY DATA SHEET**  
POWERVISION DAB CHROMOGEN SOLUTION

Page: 1

Compilation date: 26/FEB/2018

Revision No: 2

**Section 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

**Product name:** POWERVISION DAB CHROMOGEN SOLUTION

**REACH Registration Number:** Registration numbers are not available for some or all of the substance ingredients of this mixture as the substance(s) or its uses are exempt from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

**Use of substance / mixture:** Use in laboratories - Professional.

**1.3. Details of the supplier of the safety data sheet**

**Company name:** Leica Biosystems Newcastle Ltd  
Balliol Business Park West  
Benton Lane  
Newcastle Upon Tyne  
NE12 8EW  
United Kingdom

**Tel:** +44 191 2150567

**Fax:** +44 191 2151152

**Email:** [msds@LeicaBiosystems.com](mailto:msds@LeicaBiosystems.com)

**1.4. Emergency telephone number**

**Emergency tel:** USA and Canada: 1-800-424-9300  
Outside USA and Canada: +1 703-741-5970  
For emergency calls only.

**Section 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification under CLP:** Acute Tox. 4: H302; Carc. 1B: H350; Muta. 2: H341

**Most important adverse effects:** Harmful if swallowed. Suspected of causing genetic defects. May cause cancer.

**2.2. Label elements**

**Label elements under CLP:**

**Hazard statements:** H302: Harmful if swallowed.

H341: Suspected of causing genetic defects.

H350: May cause cancer.

**Signal words:** Danger

**Hazard pictograms:** GHS07: Exclamation mark

GHS08: Health hazard



[cont...]



# SAFETY DATA SHEET

## POWERVISION DAB CHROMOGEN SOLUTION

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**Precautionary statements:** P201: Obtain special instructions before use.  
P202: Do not handle until all safety precautions have been read and understood.  
P264: Wash hands thoroughly after handling.  
P270: Do not eat, drink or smoke when using this product.  
\* P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P301 + P312: IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.  
P330: Rinse mouth.  
P308 + P313: IF exposed or concerned: Get medical advice/attention.  
P501: Dispose of contents/container to hazardous or special waste collection point.

### 2.3. Other hazards

**Other hazards:** Danger of serious damage to health by prolonged exposure.

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous ingredients:

##### ETHYLENE GLYCOL

EC	CAS	REACH Registration Number	CLP Classification	Percent
203-473-3	107-21-1	Not Applicable.	Acute Tox. 4: H302	70-90%

##### 3,3' DIAMINO BENZIDINE TETRAHYDROCHLORIDE HYDRATE

EC	CAS	REACH Registration Number	CLP Classification	Percent
231-018-9	868272-85-9	Not applicable.	Muta. 2: H341; Carc. 1B: H350	1-10%

#### Non-classified ingredients:

##### 1,2-DIHYDROXYBENZENE

EC	CAS	REACH Registration Number	CLP Classification	Percent
204-427-5	120-80-9	Not applicable.	Acute Tox. 4: H312; Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315	1-10%

## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin.  
Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Consult a doctor.

**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion:** Wash out mouth with water. Consult a doctor.

**Inhalation:** Move to fresh air in case of accidental inhalation of vapours. Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

[cont...]

# SAFETY DATA SHEET

POWERVISION DAB CHROMOGEN SOLUTION

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## 4.2. Most important symptoms and effects, both acute and delayed

**Skin contact:** There may be mild irritation at the site of contact.

**Eye contact:** There may be irritation and redness.

**Ingestion:** There may be irritation of the throat.

**Inhalation:** No symptoms.

**Delayed / immediate effects:** Delayed effects can be expected after long-term exposure.

## 4.3. Indication of any immediate medical attention and special treatment needed

**Immediate / special treatment:** Not applicable.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used.

### 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** In combustion emits toxic fumes.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** Evacuate the area immediately. Turn leaking containers leak-side up to prevent the escape of liquid. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS. Refer to section 13 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Avoid direct contact with the substance. Avoid the formation or spread of mists in the air. Ensure there is sufficient ventilation of the area.

[cont...]

# SAFETY DATA SHEET

## POWERSION DAB CHROMOGEN SOLUTION

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### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Keep container tightly closed. Store in cool, well ventilated area. Keep away from sources of ignition. Keep away from direct sunlight.

**Suitable packaging:** Not applicable.

### 7.3. Specific end use(s)

**Specific end use(s):** Use in laboratories - Professional.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Hazardous ingredients: ETHYLENE GLYCOL

##### Workplace exposure limits:

##### Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
EU	52 mg/m <sup>3</sup>	104 mg/m <sup>3</sup>	-	-
UK	52 mg/m <sup>3</sup>	104 mg/m <sup>3</sup>	-	-
IE	52 mg/m <sup>3</sup>	104 mg/m <sup>3</sup>	-	-
AU	52 mg/m <sup>3</sup>	104 mg/m <sup>3</sup>	-	-
NZ	-	127 mg/m <sup>3</sup>	-	-

#### Non-classified ingredients: 1,2-DIHYDROXYBENZENE

##### Workplace exposure limits:

##### Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	23 mg/m <sup>3</sup>	-	-	-
US	20 mg/m <sup>3</sup>	-	-	-
CA	23 mg/m <sup>3</sup>	-	-	-
AU	23 mg/m <sup>3</sup>	-	-	-
NZ	23 mg/m <sup>3</sup>	-	-	-

### DNEL/PNEC Values

#### Hazardous ingredients: ETHYLENE GLYCOL

Type	Exposure	Value	Population	Effect
DNEL	Inhalation (repeated dose)	35 mg/m <sup>3</sup>	Workers	Local
DNEL	Dermal (repeated dose)	106 mg/kg bw/day	Workers	Systemic

#### Non-classified ingredients: 1,2-DIHYDROXYBENZENE

Type	Exposure	Value	Population	Effect
DNEL	Inhalation (repeated dose)	1 mg/m <sup>3</sup>	Workers	Systemic
DNEL	Inhalation	85 mg/m <sup>3</sup>	Workers	Systemic
DNEL	Dermal	2.5 mg/kg bw/day	Workers	Systemic

[cont...]

# SAFETY DATA SHEET

## POWERVISION DAB CHROMOGEN SOLUTION

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### 8.2. Exposure controls

**Engineering measures:** Ensure there is sufficient ventilation of the area.

**Respiratory protection:** Respiratory protection must be available in case of emergency.

**Hand protection:** Impermeable gloves.

**Eye protection:** Safety glasses with side-shields. Ensure eye bath is to hand.

**Skin protection:** Impermeable protective clothing.

**Environmental:** Prevent from entering in public sewers or the immediate environment.

## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**State:** Liquid

**Colour:** Blue-purple

**Odour:** Pungent

**Evaporation rate:** No data available.

**Oxidising:** No data available.

**Solubility in water:** No data available.

**Viscosity:** No data available.

**Boiling point/range°C:** No data available.

**Melting point/range°C:** No data available.

**Flammability limits %: lower:** No data available.

**upper:** No data available.

**Flash point°C:** No data available.

**Part.coeff. n-octanol/water:** No data available.

**Autoflammability°C:** No data available.

**Vapour pressure:** No data available.

**Relative density:** No data available.

**pH:** No data available.

**VOC g/l:** No data available.

### 9.2. Other information

**Other information:** Not applicable.

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.

Decomposition may occur on exposure to conditions or materials listed below.

### 10.4. Conditions to avoid

**Conditions to avoid:** Heat. Hot surfaces. Flames.

### 10.5. Incompatible materials

**Materials to avoid:** Strong oxidising agents. Strong acids.

[cont...]

# SAFETY DATA SHEET

POWERVISION DAB CHROMOGEN SOLUTION

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## 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

#### Toxicity values:

**Hazardous ingredients: ETHYLENE GLYCOL**

Route	Species	Test	Value	Units
ORAL	RAT	LD50	7712	mg/kg bw
GASES	RAT	6H LC50	> 2.5	mg/l
DERMAL	MUS	LD50	> 3500	mg/kg bw

**Non-classified ingredients: 1,2-DIHYDROXYBENZENE**

Route	Species	Test	Value	Units
ORAL	RAT	LD50	300	mg/kg bw
GASES	RAT	LC0	>= 2.8	mg/l
DERMAL	RAT	LD50	600	mg/kg bw

#### Relevant effects for mixture:

Effect	Route	Basis
Acute toxicity (harmful)	ING	Hazardous: calculated
Carcinogenicity	--	Hazardous: calculated
Mutagenicity	--	Hazardous: calculated

#### Excluded effects for mixture:

Effect	Route	Basis
Acute toxicity (toxic)	-	Based on available data the classification criteria are not met
Acute toxicity (very toxic)	-	Based on available data the classification criteria are not met
Irritation	-	Based on available data the classification criteria are not met
Corrosivity	-	Based on available data the classification criteria are not met
Sensitisation	-	Based on available data the classification criteria are not met
Repeated dose toxicity	-	Based on available data the classification criteria are not met
Toxicity for reproduction	-	Based on available data the classification criteria are not met

[cont...]

# SAFETY DATA SHEET

## POWERVERSION DAB CHROMOGEN SOLUTION

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### Symptoms / routes of exposure

**Skin contact:** There may be mild irritation at the site of contact.

**Eye contact:** There may be irritation and redness.

**Ingestion:** There may be irritation of the throat.

**Inhalation:** No symptoms.

**Delayed / immediate effects:** Delayed effects can be expected after long-term exposure.

**Other information:** Not applicable.

### Section 12: Ecological information

#### 12.1. Toxicity

**Ecotoxicity values:**

**Hazardous ingredients: ETHYLENE GLYCOL**

Species	Test	Value	Units
Pimephales promelas	96H LC50	72860	mg/l
Menidia penunsulae	28D LC50	>1500	mg/l
Daphnia magna	48H EC50	>100	mg/l

**Non-classified ingredients: 1,2-DIHYDROXYBENZENE**

Species	Test	Value	Units
Pimephales promelas	96H LC50	9.2	mg/l
Daphnia magna	24H IC50	1.67	mg/l

#### 12.2. Persistence and degradability

**Persistence and degradability:** Biodegradable.

#### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No bioaccumulation potential.

#### 12.4. Mobility in soil

**Mobility:** Readily absorbed into soil.

#### 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

#### 12.6. Other adverse effects

**Other adverse effects:** Negligible ecotoxicity.

### Section 13: Disposal considerations

#### 13.1. Waste treatment methods

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company.

**Recovery operations:** Not applicable.

**Disposal of packaging:** Arrange for collection by specialised disposal company.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

[cont...]

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## Section 14: Transport information

**Land (ADR/RID):** Not regulated for transport by land.

**Sea (IMDG):** Not regulated for transport by sea.

**Air (IATA):** Not regulated for transport by air.

**Inland Waterways (ADNR/AND):** Not regulated for transport by inland waterways.

Sub-section 14.1 to 14.7 do not apply. However, as with all chemicals, packages containing this substance should be handled during loading, transport, and unloading operations in a manner which minimises the risk of damage to and leakage from those packages.

## Section 15: Regulatory information

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

**Specific regulations:** This safety data sheet has been prepared according to;

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on classification, labelling and packaging of substances and mixtures.

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

**Other information:** indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and s.3:** H302: Harmful if swallowed.

H312: Harmful in contact with skin.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H341: Suspected of causing genetic defects.

H350: May cause cancer.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.