

**SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1. Product identifier**

**Product Description:** Development Solution  
**Cat No. :** 10-9439-41

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

**Recommended Use** In vitro diagnostic  
**Uses advised against** All other uses

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

**Company** Phadia AB  
Rapsgatan 7P  
P.O. Box 6460  
751 37 UPPSALA  
Sweden  
+46 18 16 50 00  
**E-mail address** safetydatasheet.idd@thermofisher.com

**1.4. Emergency telephone number**

CHEMTREC Ireland (Dublin) +(353)-19014670  
CHEMTREC Belgium (Brussels) +(32)-28083237  
Malta 112 Emergency phone number

**SECTION 2: HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture****GHS Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567****Physical hazards**

Based on available data, the classification criteria are not met

**Health hazards**

Based on available data, the classification criteria are not met

**Environmental hazards**

Based on available data, the classification criteria are not met

*For the full text of the H-statements mentioned in this Section, see Section 16.*

**2.2. Label elements**

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EUH208 - Contains (reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7]and 2-methyl-2H -isothiazol-3- one [EC no. 220-239-6] (3:1); (CMIT/MIT (3:1))). May produce an allergic reaction.

## 2.3. Other hazards

May produce an allergic reaction This product does not contain any known or suspected endocrine disruptors.  
This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

### 3.2. Mixtures

Component	CAS No	EC No	Weight %	GHS Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567
4-Methylumbelliferyl-Beta-D-galactopyranoside	N/A		<0.01	-
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]and 2-methyl-2H -isothiazol-3- one [EC no. 220-239-6] (3:1); (CMIT/MIT (3:1))	55965-84-9		<0.0013	Acute Tox. 3 (H301) Acute Tox. 2 (H310) Acute Tox. 2 (H330) Skin Corr. 1C (H314) Eye Dam. 1 (H318) Skin Sens. 1A (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) EUH071

Component	Specific concentration limits (SCL's)	M-Factor	Component notes
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]and 2-methyl-2H -isothiazol-3- one [EC no. 220-239-6] (3:1); (CMIT/MIT (3:1))	Eye Irrit. 2 (H319) :: 0.06%≤C<0.6% Skin Corr. 1C (H314) :: C≥0.6% Skin Irrit. 2 (H315) :: 0.06%≤C<0.6% Skin Sens. 1A (H317) :: C≥0.0015% Eye Dam. 1 (H318) :: C≥0.6%	100 (acute) 100 (chronic)	-

For the full text of the H-statements mentioned in this Section, see Section 16.

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

**Eye Contact** Rinse thoroughly with plenty of water, also under the eyelids.

**Skin Contact** Wash off immediately with soap and plenty of water.

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**Ingestion** Clean mouth with water and drink afterwards plenty of water.

**Inhalation** Not applicable.

**Self-Protection of the First Aider** Not Applicable.

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

No information available.

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

**Notes to Physician** Treat symptomatically.

## **SECTION 5: FIREFIGHTING MEASURES**

### **5.1. Extinguishing media**

#### **Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### **Extinguishing media which must not be used for safety reasons**

None known.

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

None known.

#### **Hazardous Combustion Products**

None known.

### **5.3. Advice for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

Wear protective gloves/clothing and eye/face protection.

### **6.2. Environmental precautions**

Dispose of in accordance with local regulations.

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

Wipe up with adsorbent material (e.g. cloth, fleece). Dispose of waste product or used containers according to local regulations.

### **6.4. Reference to other sections**

Refer to protective measures listed in Sections 8 and 13.

## **SECTION 7: HANDLING AND STORAGE**

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## 7.1. Precautions for safe handling

Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

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

Keep at temperatures between 2 and 8°C.

## 7.3. Specific end use(s)

Observe instructions for use.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure limits

List source(s):

Component	Austria	Denmark	Switzerland	Poland	Norway
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1); (CMIT/MIT (3:1))	MAK-TMW: 0.05 mg/m <sup>3</sup> 8 Stunden		STEL: 0.4 mg/m <sup>3</sup> 15 Minuten TWA: 0.2 mg/m <sup>3</sup> 8 Stunden		

#### Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

#### Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

#### Derived Minimum Effect Level (DMEL) / Derived No Effect Level (DNEL)

See table for values

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]and 2-methyl-2H-isothiazol-3-one [EC no.	DNEL = 0.04mg/m <sup>3</sup>		DNEL = 0.02mg/m <sup>3</sup>	

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220-239-6] (3:1); (CMIT/MIT (3:1)) 55965-84-9 ( <0.0013 )				
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## Predicted No Effect Concentration (PNEC)

See values below.

Component	Fresh water	Fresh water sediment	Water Intermittent	Microorganisms in sewage treatment	Soil (Agriculture)
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1); (CMIT/MIT (3:1)) 55965-84-9 ( <0.0013 )	PNEC = 3.39µg/L	PNEC = 0.027mg/kg sediment dw	PNEC = 3.39µg/L	PNEC = 0.23mg/L	PNEC = 0.01mg/kg soil dw

Component	Marine water	Marine water sediment	Marine water intermittent	Food chain	Air
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1); (CMIT/MIT (3:1)) 55965-84-9 ( <0.0013 )	PNEC = 3.39µg/L	PNEC = 0.027mg/kg sediment dw	PNEC = 3.39µg/L		

## 8.2. Exposure controls

### Engineering Measures

None under normal use conditions.

### Personal protective equipment

#### Eye Protection

No special protective equipment required.

#### Hand Protection

No special protective equipment required.

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
		-		

#### Skin and body protection

No special protective equipment required.

#### Respiratory Protection

No protective equipment is needed under normal use conditions.

#### Large scale/emergency use

No protective equipment is needed under normal use conditions

#### Small scale/Laboratory use

No personal respiratory protective equipment normally required.

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

### Environmental exposure controls

Dispose of contents/containers in accordance with local regulations.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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## 9.1. Information on basic physical and chemical properties

Physical State	Liquid	
Appearance	Clear	
Odor	None	
Odor Threshold	None	
Melting Point/Range	No data available	
Softening Point	No data available	
Boiling Point/Range	100 °C	
Flammability (liquid)	No data available	
Flammability (solid,gas)	Not flammable	
Explosion Limits	Not applicable	
Flash Point	Not applicable	Method - No information available
Autoignition Temperature	Not applicable	
Decomposition Temperature	Not applicable	
pH	6.5	
Viscosity	No data available	
Water Solubility	Soluble in water	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Component	log Pow	
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1); (CMIT/MIT (3:1))		
Vapor Pressure	No data available	
Density / Specific Gravity	1 g/cm3	
Bulk Density	No data available	
Vapor Density	No data available	(Air = 1.0)
Particle characteristics	Not applicable (liquid)	

## 9.2. Other information

Explosive Properties	Not applicable
Oxidizing Properties	Not applicable

## SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity	None known.
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10.2. Chemical stability	Stable under normal conditions.
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### 10.3. Possibility of hazardous reactions

Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

10.4. Conditions to avoid	None known.
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10.5. Incompatible materials	None known.
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## 10.6. Hazardous decomposition products

None known.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

**Product Information** Product does not present an acute toxicity hazard based on known or supplied information.

**(a) acute toxicity;**

**Oral**

No data available.

**Dermal**

No data available.

**Inhalation**

No data available.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1); (CMIT/MIT (3:1))	LD50 = 53 mg/kg ( Rat )	LD50 = 87.12 mg/kg ( Rabbit )	4h 0.33 mg/l ( Rat )

**(b) skin corrosion/irritation;**

No data available.

**(c) serious eye damage/irritation;**

No data available.

**(d) respiratory or skin sensitization;**

**Respiratory**

No data available.

**Skin**

No data available.

**(e) germ cell mutagenicity;**

No data available.

Component	Test method	Test species	Study result
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1); (CMIT/MIT (3:1))	in vivo in vitro		negative

**(f) carcinogenicity;**

There are no known carcinogenic chemicals in this product.

Component	Test method	Test species / Duration	Study result
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1); (CMIT/MIT (3:1))			negative

**(g) reproductive toxicity;**

No data available.

Component	Test method	Test species / Duration	Study result
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1); (CMIT/MIT (3:1))			negative Animal testing did not show any effects on fetal development

**(h) STOT-single exposure;**

No data available.

**(i) STOT-repeated exposure;**

No data available.

**(j) aspiration hazard;**

No data available.

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**Symptoms / effects, both acute and delayed** No information available.

## 11.2. Information on other hazards

**Endocrine Disrupting Properties** This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecotoxicity effects** No information available.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1); (CMIT/MIT (3:1))	Acute toxicity: LC50 96 h 0.19 mg/l (Oncorhynchus mykiss) EPA OPP 72-1  Chronic toxicity: NOEC 35 days 0.02 mg/l (Pimephales promelas) OECD 210	Acute toxicity: EC50 48 h 0.126 mg/l (Daphnia magna) OECD Test 202  Chronic toxicity: NOEC 21 days 0.10 mg/l (Daphnia magna)	Acute toxicity: ERC50 72 h 0.027 mg/l (Selenastrum capricornutum)  Chronic toxicity: NOEC 96 h 0.004 mg/l, (Skelettonema costatum) OECD 201	Chronic toxicity: NOEC 3h 0.91 mg/l (Activated sludge) OECD 209

**12.2. Persistence and degradability** No information available.

Component	Degradability
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1); (CMIT/MIT (3:1))	Biodegradable <50 % 10 days Atmospheric half-life: 0.38-1.3 Days

**12.3. Bioaccumulative potential** No information available.

Component	log Pow	Bioconcentration factor (BCF)
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1); (CMIT/MIT (3:1))	<0.401	<54

**12.4. Mobility in soil** No information available.

**12.5. Results of PBT and vPvB assessment** This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

### 12.6. Endocrine disrupting properties

**Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors

**12.7. Other adverse effects**  
**Persistent Organic Pollutant**  
**Ozone Depletion Potential**

No known effect.  
No known effect.

## SECTION 13: DISPOSAL CONSIDERATIONS



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## 13.1. Waste treatment methods

**Waste from Residues/Unused Products** Dispose of in accordance with local regulations.

**Contaminated Packaging** Dispose of in accordance with local regulations.

**European Waste Catalogue (EWC)** 18 01 07 Chemicals other than those mentioned in 18 01 06.  
**Other Information** No information available.

## SECTION 14: TRANSPORT INFORMATION

**IMDG/IMO** Not regulated

**14.1. UN number**

**14.2. UN proper shipping name**

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

**14.4. Packing group**

**ADR** Not regulated

**14.1. UN number**

**14.2. UN proper shipping name**

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

**14.4. Packing group**

**IATA** Not regulated

**14.1. UN number**

**14.2. UN proper shipping name**

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

**14.4. Packing group**

**14.5. Environmental hazards** No hazards identified.

**14.6. Special precautions for user** No special precautions required.

**14.7. Maritime transport in bulk according to IMO instruments** Not applicable, packaged goods.

## SECTION 15: REGULATORY INFORMATION

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

**International Inventories** X = listed

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	IECSC	AICS	KECL
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1); (CMIT/MIT (3:1))	-	-		-	X	-	X	X	X	-	KE-05738

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Reaction mass of: 5-chloro-2-		Use restricted. See item 75.	

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methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1); (CMIT/MIT (3:1))		(see link for restriction details)	
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Component	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1); (CMIT/MIT (3:1))	H1: 5-100 ton, E1: 20-200 ton	H1: 5-100 ton, E1: 20-200 ton

**Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals**  
Not applicable

## National Regulations

Component	Germany - Water Classification (AwSV)	Germany - TA-Luft Class
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1); (CMIT/MIT (3:1))	WGK3	

**UK** - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment.

## 15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) is not required.

## SECTION 16: OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3

H301 - Toxic if swallowed  
H310 - Fatal in contact with skin  
H314 - Causes severe skin burns and eye damage  
H317 - May cause an allergic skin reaction  
H318 - Causes serious eye damage  
H330 - Fatal if inhaled  
H400 - Very toxic to aquatic life  
H410 - Very toxic to aquatic life with long lasting effects  
EUH071 - Corrosive to the respiratory tract  
EUH208 - May produce an allergic reaction

### Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer  
Predicted No Effect Concentration (PNEC)

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**RPE** - Respiratory Protective Equipment  
**LC50** - Lethal Concentration 50%  
**NOEC** - No Observed Effect Concentration  
**PBT** - Persistent, Bioaccumulative, Toxic

**LD50** - Lethal Dose 50%  
**EC50** - Effective Concentration 50%  
**POW** - Partition coefficient Octanol:Water  
**vPvB** - very Persistent, very Bioaccumulative

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road  
**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code  
**OECD** - Organisation for Economic Co-operation and Development  
**BCF** - Bioconcentration factor

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association  
**MARPOL** - International Convention for the Prevention of Pollution from Ships  
**ATE** - Acute Toxicity Estimate  
**VOC** (volatile organic compound)

## Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>  
Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

<b>Physical hazards</b>	On basis of test data
<b>Health Hazards</b>	Calculation method
<b>Environmental hazards</b>	Calculation method

## Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

<b>Revision Date</b>	02-Jan-2024
<b>Revision Summary</b>	SDS sections updated, 7.

**This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended**

## Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**