

Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH

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

1.1. Product identifier

Code: **CLKFLUOOR3229AA**
 Product name: **FLUORESCENT CHALK INK ORANGE 3229**

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

Intended use: **FLUORESCENT WET-ERASABLE INKS FOR VALVE MARKER PENS**

Identified Uses	Industrial	Professional	Consumer
Inks	✓	✓	✓
Uses Advised Against			
Do not use for uses other than those indicated			

1.3. Details of the supplier of the safety data sheet

Name	Modern Teaching Aids Pty Ltd
Full address	ABN 98 000 628 786
District and Country	Address Level 1, 122-126 Old Pittwater Road, Brookvale, NSW, Australia 2100
	Tel: 1800 251 497

e-mail address of the competent person responsible for the Safety Data Sheet

1.4. Emergency telephone number

For urgent inquiries refer to **Australia – 13 11 26 (Poisons Information Centre)**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

SECTION 2. Hazards identification ... / >>

Hazardous to the aquatic environment, chronic toxicity, category 3

H412

Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms: --

Signal words: --

Hazard statements:

H412
EUH208

Harmful to aquatic life with long lasting effects.

 Contains: 2-METHYLISOTHIAZOL-3 (2H) -ONE
 3,6-BIS(ETHYLAMINO)-9-[2-(METHOXYCARBONYL)PHENYL]-2,7-DIMETHYLXANTHYLIUM CHLORIDE

May produce an allergic reaction.

Precautionary statements:

P273

Avoid release to the environment.

2.3. Other hazards

 On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.

 The product does not contain substances with endocrine disrupting properties in concentration \geq 0.1%.

SECTION 3. Composition/information on ingredients
3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
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OXIRANE, 2-METHYL-, POLYMER WITH OXIRANE, MONO[(DIETHYLAMINO)ALKYL] ETHER

INDEX	$1 \leq x < 3$	Eye Irrit. 2 H319
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EC	682-051-4
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CAS	68511-96-6
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DIPROPYLENE GLYCOL MONOMETHYL ETHER

INDEX	$0 \leq x < 0,5$	Substance with a community workplace exposure limit.
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EC	252-104-2
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CAS	34590-94-8
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REACH Reg.	01-2119450011-60-xxxx
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3,6-BIS(ETHYLAMINO)-9-[2-(METHOXYCARBONYL)PHENYL]-2,7-DIMETHYLXANTHYLIUM CHLORIDE

INDEX	$0 \leq x < 0,25$	Acute Tox. 2 H330, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Sens. 1B H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1 LD50 Oral: 449 mg/kg, LC50 Inhalation mists/powders: 0,05 mg/l/4h
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EC	221-326-1
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CAS	3068-39-1
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REACH Reg.	01-2120107344-68-xxxx
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3,6-BIS(DIETHYLAMINO)-9-[2-(METHOXYCARBONYL)PHENYL]XANTHYLIUM TETRACHLOROZINCATE

INDEX	$0 \leq x < 0,25$	Acute Tox. 3 H301, Acute Tox. 3 H331, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1 LD50 Oral: >50 mg/kg, STA Inhalation mists/powders: 0,501 mg/l
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EC	277-459-0
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CAS	73398-89-7
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REACH Reg.	01-2120106880-63-xxxx
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2-BROMO-2-NITROPROPAN-1,3-DIOL

INDEX	$603-085-00-8$	$0 \leq x < 0,5$	Acute Tox. 3 H301, Acute Tox. 3 H331, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335, Aquatic Acute 1 H400 M=10, Aquatic Chronic 2 H411
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EC	200-143-0
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STA Oral:	100 mg/kg, STA Dermal: 1100 mg/kg, LC50 Inhalation mists/powders: 0,588 mg/l/4h
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CAS	52-51-7
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REACH Reg.	01-2119980938-15-xxxx
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SECTION 3. Composition/information on ingredients ... / >>

2-METHYLISOTHIAZOL-3 (2H) -ONE

INDEX $0 \leq x < 0,0015$

EC 220-239-6

CAS 2682-20-4

REACH Reg. 01-2120764690-50-xxxx

Acute Tox. 2 H330, Acute Tox. 3 H301, Acute Tox. 3 H311, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1, EUH071
 Skin Sens. 1A H317: $\geq 0,0015\%$
 LD50 Oral: 120 mg/kg, LD50 Dermal: 242 mg/kg, LC50 Inhalation mists/powders: 0,11 mg/l/4h

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

SECTION 6. Accidental release measures ... / >>

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory references:

BGR	България	НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)
CZE	Česká Republika	Nařízení vlády č. 41/2020 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů
DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
HUN	Magyarország	Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NLD	Nederland	Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
SWE	Sverige	Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1)
SVN	Slovenija	Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19)
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2022

SECTION 8. Exposure controls/personal protection ... / >>
DIPROPYLENE GLYCOL MONOMETHYL ETHER
Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m ³	ppm	mg/m ³	ppm	
TLV	BGR	308	50			SKIN
TLV	CZE	270	43,74	550	89,1	SKIN
AGW	DEU	310	50	310	50	
MAK	DEU	310	50	310	50	
VLA	ESP	308	50			SKIN
VLEP	FRA	308	50			SKIN
AK	HUN	308				
VLEP	ITA	308	50			SKIN
TGG	NLD	300				
VLE	PRT	308	50			SKIN
NDS/NDSch	POL	240		480		SKIN
NGV/KGV	SWE	300	50	450	75	SKIN
MV	SVN	308	50			SKIN
WEL	GBR	308	50			SKIN
OEL	EU	308	50			SKIN
TLV-ACGIH			50			

Predicted no-effect concentration - PNEC

Normal value in fresh water	19	mg/l
Normal value in marine water	1,9	mg/l
Normal value for fresh water sediment	70,2	mg/kg
Normal value for marine water sediment	7,02	mg/kg
Normal value for water, intermittent release	190	mg/l
Normal value of STP microorganisms	4168	mg/l
Normal value for the terrestrial compartment	2,74	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	36 mg/kg bw/d				
Inhalation			VND	37,2 mg/m ³			VND	308 mg/m ³
Skin			VND	121 mg/kg bw/d			VND	283 mg/kg bw/d

3,6-BIS(DIETHYLAMINO)-9-[2-(METHOXYCARBONYL)PHENYL]XANTHYLIUM TETRACHLOROZINCATE
Predicted no-effect concentration - PNEC

Normal value in fresh water	0,00011	mg/l
	6	
Normal value for fresh water sediment	0,00143	mg/kg
Normal value for marine water sediment	0,00014	mg/kg
	3	
Normal value for water, intermittent release	0,00116	mg/l
Normal value of STP microorganisms	0,067	mg/l
Normal value for the terrestrial compartment	0,00021	mg/kg
	9	
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,113 mg/kg bw/d				
Inhalation				0,196 mg/m ³				1,11 mg/m ³
Skin				0,113 mg/kg bw/d				0,315 mg/kg bw/d

SECTION 8. Exposure controls/personal protection ... / >>
3,6-BIS(ETHYLAMINO)-9-[2-(METHOXYCARBONYL)PHENYL]-2,7-DIMETHYLXANTHILIUM CHLORIDE
Predicted no-effect concentration - PNEC

Normal value in fresh water	0	mg/l
Normal value in marine water	0	mg/l
Normal value for fresh water sediment	0,989	mg/kg
Normal value for marine water sediment	0,099	mg/kg
Normal value for water, intermittent release	0	mg/l
Normal value of STP microorganisms	0,33	mg/l
Normal value for the food chain (secondary poisoning)	0,1	mg/kg
Normal value for the terrestrial compartment	0,198	mg/kg
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation						0,2 mg/m3		0,06 mg/m3
Skin					0,25 mg/cm2	0,06 mg/kg bw/d	0,125 mg/cm2	0,02 mg/kg bw/d

2-BROMO-2-NITROPROPAN-1,3-DIOL
Predicted no-effect concentration - PNEC

Normal value in fresh water	0,01	mg/l
Normal value in marine water	0,0008	mg/l
Normal value for fresh water sediment	0,041	mg/kg
Normal value for marine water sediment	0,00328	mg/kg
Normal value for water, intermittent release	0,0025	mg/l
Normal value of STP microorganisms	0,43	mg/l
Normal value for the terrestrial compartment	0,5	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	0,5 mg/kg bw/d	VND	0,18 mg/kg bw/d				
Inhalation	0,6 mg/m3	1,8 mg/m3	0,6 mg/m3	0,6 mg/m3	2,5 mg/m3	10,5 mg/m3	2,5 mg/m3	3,5 mg/m3
Skin	0,004 mg/cm2	2,1 mg/kg bw/d	0,004 mg/cm2	0,7 mg/kg bw/d	0,008 mg/cm2	6,0 mg/kg bw/d	0,008 mg/cm2	2,0 mg/kg bw/d

2-METHYLISOTHIAZOL-3 (2H) -ONE
Predicted no-effect concentration - PNEC

Normal value in fresh water	0,00339	mg/l
Normal value in marine water	0,00339	mg/l
Normal value for water, intermittent release	0,00339	mg/l
Normal value of STP microorganisms	0,23	mg/l
Normal value for the terrestrial compartment	0,047	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		0,053 mg/kg bw/d		0,027 mg/kg bw/d				
Inhalation	0,043 mg/m3	NPI	0,021 mg/m3	NPI	0,043 mg/m3	NPI	0,021 mg/m3	NPI
Skin	VND	NPI	NPI	NPI	VND	NPI	NPI	NPI

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

SECTION 8. Exposure controls/personal protection ... / >>

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

HAND PROTECTION

Protect hands with category III work gloves.

The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	orange	
Odour	characteristic	
Odour threshold	not determined	
Melting point / freezing point	not determined	
Initial boiling point	> 90 °C	
Boiling range	not determined	
Flammability	not flammable	
Lower explosive limit	not determined	
Upper explosive limit	not determined	
Flash point	> 60 °C	
Auto-ignition temperature	not determined	
Decomposition temperature	not determined	
pH	8,00 - 9,00	
Kinematic viscosity	not determined	
Solubility	water-miscible	
Partition coefficient: n-octanol/water	not determined	
Vapour pressure	not determined	
Density and/or relative density	1,200 +/- 0,100 kg/l	
Relative vapour density	not determined	
Particle characteristics	not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Evaporation rate	not determined
VOC (Directive 2010/75/EU)	2,60 %

SECTION 9. Physical and chemical properties ... / >>

VOC (volatile carbon)	1,30 %
Explosive properties	not explosive

SECTION 10. Stability and reactivity
10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation - mists / powders) of the mixture:	> 5 mg/l
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	Not classified (no significant component)

OXIRANE, 2-METHYL-, POLYMER WITH OXIRANE, MONO[(DIETHYLAMINO)ALKYL] ETHER

LD50 (Dermal):	> 2000 mg/kg Rabbit
LD50 (Oral):	> 5000 mg/kg Rat

DIPROPYLENE GLYCOL MONOMETHYL ETHER

LD50 (Dermal):	9510 mg/kg Rabbit (New Zealand White) (male) - OECD Guideline 402
LD50 (Oral):	> 5000 mg/kg Rat (Sprague-Dawley) - OECD Guideline 401

SECTION 11. Toxicological information ... / >>

3,6-BIS(DIETHYLAMINO)-9-[2-(METHOXYCARBONYL)PHENYL]XANTHYLIUM TETRACHLOROZINCATE
LD50 (Dermal): > 2000 mg/kg Rat (Sprague-Dawley) - OECD Guideline 402
LD50 (Oral): > 50 mg/kg Rat (Wistar) (female) - OECD Guideline 423

3,6-BIS(ETHYLAMINO)-9-[2-(METHOXYCARBONYL)PHENYL]-2,7-DIMETHYLXANTHYLIUM CHLORIDE
LD50 (Oral): 449 mg/kg Rat (Sprague-Dawley) - OECD Guideline 401
LC50 (Inhalation mists/powders): 0,05 mg/l/4h Rat (Wistar) - OECD Guideline 403

2-BROMO-2-NITROPROPAN-1,3-DIOL
LD50 (Dermal): > 2000 mg/kg Rat (Wistar) - OECD Guideline 402
STA (Dermal): 1100 mg/kg estimate from table 3.1.2 of Annex I of the CLP
(figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Oral): 307 mg/kg Rat (Wistar) (male) - Standard acute method
STA (Oral): 100 mg/kg estimate from table 3.1.2 of Annex I of the CLP
(figure used for calculation of the acute toxicity estimate of the mixture)
LC50 (Inhalation mists/powders): 0,588 mg/l/4h Rat (Sprague-Dawley)

2-METHYLISOTHIAZOL-3 (2H) -ONE
LD50 (Dermal): 242 mg/kg Rat - OECD Guideline 402
LD50 (Oral): 120 mg/kg Rat (female) - EPA 40 CFR
LC50 (Inhalation mists/powders): 0,11 mg/l/4h Rat - OECD Guideline 403

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.

Contains:

2-METHYLISOTHIAZOL-3 (2H) -ONE

3,6-BIS(ETHYLAMINO)-9-[2-(METHOXYCARBONYL)PHENYL]-2,7-DIMETHYLXANTHYLIUM CHLORIDE

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

DIPROPYLENE GLYCOL MONOMETHYL ETHER

LC50 - for Fish	> 1000 mg/l/96h <i>Poecilia reticulata</i> - OECD Guideline 203
EC50 - for Crustacea	1919 mg/l/48h <i>Daphnia magna</i> - OECD guideline 202
EC50 - for Algae / Aquatic Plants	> 969 mg/l/72h <i>Pseudokirchneriella subcapitata</i> - OECD Guideline 201

OXIRANE, 2-METHYL-, POLYMER WITH OXIRANE, MONO[(DIETHYLAMINO)ALKYL] ETHER

LC50 - for Fish	> 100 mg/l/96h <i>Oncorhynchus mykiss</i>
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h Algae

2-BROMO-2-NITROPROPAN-1,3-DIOL

LC50 - for Fish	41,2 mg/l/96h <i>Oncorhynchus mykiss</i> - EPA OPP 72-1
EC50 - for Crustacea	1,4 mg/l/48h <i>Daphnia magna</i> - OECD Guideline 202
Chronic NOEC for Fish	21,5 mg/l/96h <i>Oncorhynchus mykiss</i> - OECD Guideline 210 - Total exposure duration: 49d
Chronic NOEC for Crustacea	0,27 mg/l <i>Daphnia magna</i> - OECD Guideline 211 - Total exposure duration: 21d

2-METHYLISOTHIAZOL-3 (2H) -ONE

EC50 - for Algae / Aquatic Plants	< 0,1 mg/l/72h <i>Skeletonema costatum</i> - OECD Guideline 201
EC10 for Algae / Aquatic Plants	< 0,1 mg/l/72h <i>Skeletonema costatum</i>
Chronic NOEC for Crustacea	0,0442 mg/l <i>Daphnia magna</i> - OECD Guideline 211 - Total exposure duration: 21 days

3,6-BIS(ETHYLAMINO)-9-[2-(METHOXYCARBONYL)PHENYL]-2,7-DIMETHYLXANTHYLIUM CHLORIDE

LC50 - for Fish	6,85 mg/l/96h <i>Leuciscus idus</i> - OECD Guideline 203
EC50 - for Crustacea	1 mg/l/48h <i>Daphnia magna</i> - OECD Guideline 202
EC50 - for Algae / Aquatic Plants	0,023 mg/l/72h <i>Pseudokirchneriella subcapitata</i> - OECD Guideline 201

3,6-BIS(DIETHYLAMINO)-9-[2-(METHOXYCARBONYL)PHENYL]XANTHYLIUM TETRACHLOROZINCATE

LC50 - for Fish	0,98 mg/l/96h <i>Danio rerio</i> - OECD Guideline 203
EC50 - for Crustacea	0,23 mg/l/48h <i>Daphnia magna</i> - OECD Guideline 202
EC50 - for Algae / Aquatic Plants	0,041 mg/l/72h <i>Pseudokirchneriella subcapitata</i> - OECD Guideline 201

12.2. Persistence and degradability

DIPROPYLENE GLYCOL MONOMETHYL ETHER

Solubility in water	1000 - 10000 mg/l
Rapidly degradable	% Biodegradability: 79% (28d) - Method: OECD Guideline 301F

2-BROMO-2-NITROPROPAN-1,3-DIOL

Solubility in water	280000 mg/l
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2-METHYLISOTHIAZOL-3 (2H) -ONE

Solubility in water	> 10000 mg/l
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3,6-BIS(ETHYLAMINO)-9-[2-(METHOXYCARBONYL)PHENYL]-2,7-DIMETHYLXANTHYLIUM CHLORIDE

NOT rapidly degradable

3,6-BIS(DIETHYLAMINO)-9-[2-(METHOXYCARBONYL)PHENYL]XANTHYLIUM TETRACHLOROZINCATE

Solubility in water	22100 mg/l
NOT rapidly degradable	

12.3. Bioaccumulative potential

DIPROPYLENE GLYCOL MONOMETHYL ETHER

Partition coefficient: n-octanol/water	0,0043
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2-BROMO-2-NITROPROPAN-1,3-DIOL

Partition coefficient: n-octanol/water	0,22
BCF	3,16

SECTION 12. Ecological information ... / >>**12.4. Mobility in soil**

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations**13.1. Waste treatment methods**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number or ID number

not applicable

14.2. UN proper shipping name

not applicable

14.3. Transport hazard class(es)

not applicable

14.4. Packing group

not applicable

14.5. Environmental hazards

not applicable

14.6. Special precautions for user

not applicable

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product			
Point	3		
Contained substance			
Point	75		
Point	72-77	FORMALDEHYDE	
		REACH Reg.: 01-2119488953-20-xxxx	

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
not applicable

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage \geq than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Information not available

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1A	Skin sensitization, category 1A
Skin Sens. 1B	Skin sensitization, category 1B
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

SECTION 16. Other information ... / >>

H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition

SECTION 16. Other information ... / >>

- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 04 / 08 / 09 / 11 / 12 / 15 / 16.