

SAFETY DATA SHEET

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Section 1. Identification Product name

illustra NICK™ Columns, (x 20)

17-0855-01

Other means of identification Product type

Not available. Liquid.

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

Identified uses

Catalogue Number

Use in laboratories

Industrial applications: Analytical chemistry. Liquid chromatography. Research.

Supplier	Cytiva Amersham Place Little Chalfont Buckinghamshire HP7 9NA United Kingdom +44 0800 515 313	Cytiva USA 100 Results Way Marlborough, MA 01752 1-800-526-3593
n case of emergency	ChemTrec US (available 24/7)	1-800-424-9300
Section 2. Hazards iden	tification	
OSHA/HCS status	This material is considered haza 1910.1200).	dous by the OSHA Hazard Communication Standard (29 CFR
Classification of the substance or mixture	SKIN SENSITIZATION - Categor	y 1
<u>GHS label elements</u> Hazard pictograms	<u>(!)</u>	
Signal word	Warning	
Hazard statements	May cause an allergic skin reacti Harmful to aquatic life with long l	
Precautionary statements		
Prevention	Wear protective gloves. Avoid re work clothing must not be allowe	elease to the environment. Avoid breathing vapor. Contaminated dout of the workplace.
Response	IF ON SKIN: Wash with plenty o skin irritation or rash occurs: Ge	f soap and water. Wash contaminated clothing before reuse. If
Storage	Not applicable.	
Storage		
Disposal Hazards not otherwise	Dispose of contents and container regulations. None known.	er in accordance with all local, regional, national and international

classified

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Section 3. Composition/information on ingredients

Substance/mixture Other means of identification	Mixture Not available.		
CAS number/other identifiers CAS number	Not applicable.		
Ingredient name		%	CAS number
reaction mass of: 5-chloro-2-methy 2-methyl-2H-isothiazol-3-one [EC	yl-4-isothiazolin-3-one [EC no. 247-500-7] and no. 220-239-6] (3:1)	0.0015 - 0.00375	55965-84-9

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention
Inhalation	if irritation occurs. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Most important symptoms/effe	ects, acute and delayed
Potential acute health effects	<u>s</u>
Eye contact	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards.
Skin contact	May cause an allergic skin reaction.
Ingestion	No known significant effects or critical hazards.
Over-exposure signs/sympto	oms
Eye contact	No specific data.
Inhalation	No specific data.
Skin contact	Adverse symptoms may include the following: irritation redness
Ingestion	No specific data.
Indication of immediate medic	cal attention and special treatment needed, if necessary
Notes to physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	No specific treatment.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
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See toxicological information (Section 11)



Section 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	No specific data.
Special protective actions for fire-fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
Methods and materials for contai	nment and cleaning up
Small spill	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water- soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

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Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits	
reaction mass of: 5-chloro-2-meth 247-500-7] and 2-methyl-2H-isoth (3:1)	
Appropriate engineering controls	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Individual protection measures	
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Skin protection	
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	Liquid. [Suspension.]
Color	solution : Colorless. / Suspension. : White.
Odor	Odorless.
Odor threshold	Not available.
рН	Not available.
Melting point	Not available.
Boiling point	Not available.
Flash point	Not applicable.
Burning time	Not applicable.
Burning rate	Not applicable.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower and upper explosive (flammable) limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility	Not available.
Solubility in water	Not available.
Partition coefficient: n-octanol/ water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
SADT	Not available.

Article Number :

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Section 10. Stability and reactivity

ons of storage and use, hazardous reactions will not occur.
ons of storage and use, hazardous decomposition products should not be

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity					
Product/ingredient name	Result	Species	;	Dose	Exposure
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)	LD50 Oral	Rat		53 mg/kg	-
Irritation/Corrosion					
Product/ingredient name	Result	Species	Score	Exposure	Observation
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)	Skin - Severe irritant	Human	-	0.01 Percent	-
<u>Sensitization</u> Not available.					
Mutagonicity					
Mutagenicity Not available.					
Carcinogenicity Not available.					
Reproductive toxicity Not available.					
<u>Teratogenicity</u> Not available.					
Specific target organ toxicity (s Not available.	<u>ingle exposure)</u>				
Specific target organ toxicity (re Not available.	epeated exposure)				
Aspiration hazard Not available.					
Information on the likely routes of exposure	Routes of entry anticipated: Ora	I, Dermal, Inhalati	on.		
Potential acute health effects					
Eye contact	No known significant effects or o	critical hazards.			
Inhalation	No known significant effects or o				
Skin contact	May cause an allergic skin react	tion.			
Ingestion	No known significant effects or o	critical hazards.			
Symptoms related to the physica	I, chemical and toxicological ch	naracteristics			
Eye contact	No specific data.				
Inhalation	No specific data.				



Skin contact	Adverse symptoms may includ	the follow	/ing:			
	irritation redness					
Ingestion	No specific data.					
Delayed and immediate effects a	nd also chronic effects from s	short and lo	ong term expo	sure		
Short term exposure						
Potential immediate effects Potential delayed effects	Not available. Not available.					
Long term exposure						
Potential immediate effects Potential delayed effects	Not available. Not available.					
Potential chronic health effects Not available.						
General	Once sensitized, a severe aller levels.	rgic reaction	n may occur wl	hen subsequer	ntly exposed to	very low
Carcinogenicity	No known significant effects or					
Mutagenicity Teratogenicity	No known significant effects or No known significant effects or					
Developmental effects	No known significant effects or					
Fertility effects	No known significant effects or	r critical haz	zards.			
Numerical measures of toxicity						
Acute toxicity estimates						
Product/ingredient name	Ora	al (mg/kg)	Dermal (mg/kg)	Inhalation (gases)	Inhalation (vapors) (mg/l)	Inhalation (dusts and miste) (mg/
				(ppm)	(mg/l)	mists) (mg/
reaction mass of 5-chloro-2-meth 2-methyl-2H-isothiazol-3-one (3:			50	(ppm) N/A	(ing ii) 0.5	i) N/A
2-methyl-2H-isothiazol-3-one (3:	1)		50			I)
2-methyl-2H-isothiazol-3-one (3: Section 12. Ecological in	1)	,	50			I)
2-methyl-2H-isothiazol-3-one (3: Section 12. Ecological in <u>Toxicity</u> Not available.	1)		50			I)
2-methyl-2H-isothiazol-3-one (3: Section 12. Ecological in <u>Toxicity</u> Not available.	1)		50			I)
2-methyl-2H-isothiazol-3-one (3: Section 12. Ecological in <u>Toxicity</u> Not available. <u>Persistence and degradability</u>	1)		50			I)
2-methyl-2H-isothiazol-3-one (3: Section 12. Ecological in <u>Toxicity</u> Not available. <u>Persistence and degradability</u> Not available. <u>Bioaccumulative potential</u> Not available. <u>Mobility in soil</u> Soil/water partition coefficient (K	1)		50			I)
2-methyl-2H-isothiazol-3-one (3: Section 12. Ecological in <u>Toxicity</u> Not available. <u>Persistence and degradability</u> Not available. <u>Bioaccumulative potential</u> Not available. <u>Mobility in soil</u> Soil/water partition coefficient (K oc)	i) Iformation					I)
2-methyl-2H-isothiazol-3-one (3: Section 12. Ecological in <u>Toxicity</u> Not available. <u>Persistence and degradability</u> Not available. <u>Bioaccumulative potential</u> Not available. <u>Mobility in soil</u> <u>Soil/water partition coefficient (K</u> oc) Other adverse effects	i) Iformation Not available. No known significant effects or					I)
2-methyl-2H-isothiazol-3-one (3: Section 12. Ecological in <u>Toxicity</u> Not available. <u>Persistence and degradability</u> Not available. <u>Bioaccumulative potential</u> Not available. <u>Mobility in soil</u> <u>Soil/water partition coefficient (K</u> oc) Other adverse effects Section 13. Disposal cor	nformation Not available. No known significant effects or nsiderations	r critical haz	zards.	N/A	0.5	I) N/A
2-methyl-2H-isothiazol-3-one (3: Section 12. Ecological in <u>Toxicity</u> Not available. <u>Persistence and degradability</u> Not available. <u>Bioaccumulative potential</u> Not available. <u>Mobility in soil</u> <u>Soil/water partition coefficient (K</u> oc) Other adverse effects	i) Iformation Not available. No known significant effects or	r critical haz d be avoide products sh waste disposed waste disposed with jurisdid dered wher way. Care ed out. Em	ed or minimized ould at all time isal legislation n-recyclable pr d of untreated t ction. Waste p n recycling is no should be take pty containers	N/A d wherever post as comply with and any region oducts via a lic othe sewer ur ackaging shou ot feasible. Th n when handlin or liners may re	0.5 ssible. Disposa the requiremen ial local authori ensed waster du hless fully comp ld be recycled. is material and ng emptied con etain some pro	I) N/A
2-methyl-2H-isothiazol-3-one (3: Section 12. Ecological in <u>Toxicity</u> Not available. <u>Persistence and degradability</u> Not available. <u>Bioaccumulative potential</u> Not available. <u>Mobility in soil</u> <u>Soil/water partition coefficient (K</u> oc) Other adverse effects Section 13. Disposal cor	I) Iformation Not available. No known significant effects or nsiderations The generation of waste shoul product, solutions and any by- environmental protection and v requirements. Dispose of surp contractor. Waste should not l requirements of all authorities or landfill should only be consis must be disposed of in a safet have not been cleaned or rinse Avoid dispersal of spilled mate	r critical haz d be avoide products sh waste disposed waste disposed with jurisdid dered wher way. Care ed out. Em	ed or minimized ould at all time isal legislation n-recyclable pr d of untreated t ction. Waste p n recycling is no should be take pty containers	N/A d wherever post as comply with and any region oducts via a lic othe sewer ur ackaging shou ot feasible. Th n when handlin or liners may re	0.5 ssible. Disposa the requiremen ial local authori ensed waster du hless fully comp ld be recycled. is material and ng emptied con etain some pro	I) N/A



Section 15. Regulatory information

U.S. Federal regulations TSCA 8(a) CDR Exempt/Partial exemption: Not	ot determined
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Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)		Not listed			
Clean Air Act Section 602 Class I	Not listed				
Clean Air Act Section 602 Class II Substances		Not listed			
DEA List I Chemicals (Precursor Chemicals)		Not listed			
DEA List II Chemicals (Essential Chemicals)		Not listed			
SARA 302/304					
Composition/information on ing	redients				
No products were found.					
SARA 304 RQ	Not applicable.				
SARA 311/312					
Classification	SKIN SENSITIZATION - Category 1				
Composition/information on ing	<u>redients</u>				
Name	%	Classification			
reaction mass of 5-chloro-2-methy 2H-isothiazol-3-one and 2-methyl- isothiazol-3-one (3:1)		ACUTE TOXICITY (oral) - Category 3 ACUTE TOXICITY (dermal) - Category 2 ACUTE TOXICITY (inhalation) - Category 2 SKIN CORROSION - Category 1C SKIN SENSITIZATION - Category 1A			
State regulations					
Massachusetts	None of the components are listed.				
New York	None of the components are listed.				
New Jersey	None of the components are listed.				
Pennsylvania	None of the components	are listed.			
International regulations					
Chemical Weapon Convention L	ist Schedules I, II & III C	hemicals			
Not listed.					
Montreal Protocol					
Not listed.					
Stockholm Convention on Persi Not listed.	stent Organic Pollutants	i			
Rotterdam Convention on Prior	Informed Consent (PIC)				
Not listed.					
UNECE Aarhus Protocol on POI	<u>Ps and Heavy Metals</u>				
Not listed.					
Inventory list					
United States	Not determined.				
Europe	Not determined.				
Canada inventory	All components are listed	or exempted.			
Castiers 10. Others informed	- 11				

Section 16. Other information

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Article Number :

17085501



Procedure used to derive the cla	ssification				
Classi	fication		Justification		
SKIN SENSITIZATION - Categor AQUATIC HAZARD (LONG-TER		Calculation method Calculation method			
<u>History</u>					
Date of printing	5/19/2020				
Date of issue/Date of revision	2/4/2020				
Date of previous issue	6/18/2019				
Version	9				
	sds_author@cytiva.com				
Key to abbreviations	ATE = Acute Toxicity Estimate				
	BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals				
IATA = International Air Transport Association					
IBC = Intermediate Bulk Container					
IMDG = International Maritime Dangerous Goods					
LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified					
	by the Protocol of 1978. ("Marpo				
	N/A = Not available				
References	UN = United Nations				
	Not available.				
Indicates information that has changed from previously issued version.					

Notice to reader

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