

Simplicity in Water Analysis

Cover Page for Safety Data Sheet

Thank you for choosing CHEMetrics, Inc. We appreciate your business. In order to best serve your needs for accurate and complete Safety Data, we offer the following information as supplemental to the attached SDS.

SDS No.: K8810

Version No.: 1.1

Product Name: Quaternary Ammonium Compound (QAC) Titrets® Ampoules

Part Nos.: K-8810 Ampoules, K-8820 Ampoules

Product Descriptions:

Titrets Ampoules: Glass ampoules, 13 mm OD, for titrimetric water analysis. Each Titret™ ampoule contains approximately 1.1 mL of liquid reagent sealed under vacuum. Test kits contain 30 ampoules.

Addendum to Section 14 Transport Information:

Shipping container markings and labels for this product, as received, may vary from the contents of section 14 of the SDS for one or both of the following reasons:

- CHEMetrics has packaged this product as Dangerous Goods in Excepted Quantities according to IATA, US DOT, and IMDG regulations.
- CHEMetrics has packaged this product as part of a test kit or reagent set composed of various chemical reagents and elected to ship as UN 3316 Chemical Kit, Hazard Class 9, Packing Group II or III.

In case of reshipment, it is the responsibility of the shipper to determine appropriate labels and markings in accordance with applicable transportation regulations.

Additional Information:

- "Print Date" = Revision Date (expressed as DD/MM/YYYY)
- Test kits and reagents sets may contain additional chemical reagents. See separate SDS(s).

CHEMets®, VACUettes®, Vacu-vials®, and Titrets® are registered trademarks of CHEMetrics Inc.



CHEMetrics, Inc.

Precautionary statement(s) Response

Not Applicable

Chernwatch: 9-84711 SDS No: K8810 Version No: 1.1

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Chemwatch Hazard Alert Code: 0

Issue Date: **04/11/2014** Print Date: **12/03/2015** Initia! Date: **05/11/2014** S.GHS.USA.EN

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

GH\$ label elements Not Applicable SIGNAL WORD NOT APPLICABLE Hazard statement(s)	Product Identifier	
Proper shipping name Chemical formula Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Relevant identified uses of the substance or mixture and uses advised against Relevant identified uses Component of writer analysis test kits 1-6810, K-6820 Details of the manufacturer/Importer Registered company name Address Address Address Address Address Address Address Not 1-540-789-4059 Fix 1-540-789-4059 Websits	Product name	Quaternary Ammonium Compound (QAC) Titrets Ampoules
Chemical formula Other means of controlled to the controlled to th	Synonyms	Part Nos.: K-8810 Ampoules, K-8820 Ampoules
Other masses of total statement(s) CAS number Relevant identified uses of the substance or mixture and uses advised against Relevant identified uses Component of water analysis last his K-8810, K-8820 Details of the manufacturer/importer Registered company name Address Telephone Fax 1-540-788-4526 1-540-788-4526 Telephone Fax 1-540-788-4526 Webstels Email Versional Tempency telephone number Association (Organisation Emergency telephone numbers Association (Organisation Cheminal his. 1-500-255-5324 Other emergency telephone numbers Association of the substance or mixture GHS Classification Not Applicable SECTION 2 HAZARDS IDENTIFICATION Classification of the substance or mixture GHS Sizelefication Not Applicable SIGNAL WORD NOT APPLICABLE Hazard statement(s) Not Applicable Precautionary statement(s) Prevention vot Applicable Precautionary statement(s) Prevention	Proper shipping name	Not Applicable
Not Available Not Applicable	Chemical formula	Not Applicable
Relevant identified uses of the substance or mixture and uses advised against Relevant identified uses Component of water analysis test kiln K-8810, K-8820 Details of the manufacturer/importer Registered company name Address 4295 Calett Read, Midend, VA, 22228 United States Talephone 1-540-789-4059 Website Email 1-540-789-4059 Website 1-54		Not Available
Relevant identified uses Component of water analysis test bits K-6510, K-6520 Details of the manufacturer/importer Registered company name Address Address Address Address Telephone 1-5-0-788-456 Fax 1-5-0-788-456 Website Email schrinkingschemenisca.com Emergency telephone number Association / Organisation Emergency telephone number Association / Organisation Emergency telephone number Other emergency telephone number Association / Organisation Cherrifiel ho. Emergency telephone number Association of the aubstance or mixture GHS Classification Not Applicable Label elements GHS label elements Not Applicable SIGNAL WORD NOT APPLICABLE Hazard statement(s) Vot Applicable Precautionary statement(s) Prevention Vot Applicable Precautionary statement(s) Pot I Fredical advice is needed, have product container or label at hand. Pot I Fredical advice is needed, have product container or label at hand. Pot I Fredical advice is needed, have product container or label at hand. Pot I Fredical advice is needed, have product container or label at hand.	CAS number	Not Applicable
Relevant identified uses Component of water analysis test bits K-6510, K-6520 Details of the manufacturer/importer Registered company name Address Address Address Address Telephone 1-5-0-788-456 Fax 1-5-0-788-456 Website Email schrinkingschemenisca.com Emergency telephone number Association / Organisation Emergency telephone number Association / Organisation Emergency telephone number Other emergency telephone number Association / Organisation Cherrifiel ho. Emergency telephone number Association of the aubstance or mixture GHS Classification Not Applicable Label elements GHS label elements Not Applicable SIGNAL WORD NOT APPLICABLE Hazard statement(s) Vot Applicable Precautionary statement(s) Prevention Vot Applicable Precautionary statement(s) Pot I Fredical advice is needed, have product container or label at hand. Pot I Fredical advice is needed, have product container or label at hand. Pot I Fredical advice is needed, have product container or label at hand. Pot I Fredical advice is needed, have product container or label at hand.	Relevant identified uses	of the substance or mixture and uses advised against
Registered company name Address Telephone 1-540-759-9023 Telephone Fix 1-540-759-9023 Telephone Fix 1-540-759-9023 Telephone Fix 1-540-759-9023 Telephone Fix 1-540-759-9023 Telephone Email Email Email Email Email Emergency telephone number Association / Organisation Emergency telephone number Association / Organisation Emergency telephone numbers Other emergency telephone numbers Other emergency telephone numbers Other descriptions Telephone Not Applicable Classification of the substance or mixture CHS Classification Not Applicable SIGNAL WORD Not Applicable SIGNAL WORD Not Applicable Not Applicable Procautionary statement(s) Not Applicable Procautionary statement(s) Provention Pfor Ifmedical advice is needed, have product container or label at hand. Pfor Ifmedical advice is needed, have product container or label at hand. Pfor Ifmedical advice is needed, have product container or label at hand. Pfor Ifmedical advice is needed, have product container or label at hand. Nose pout of result of children.		man and antiquing antiquing antiquing antiquing antiquing and antiquing antiquing and antiquing
Address Telephone Fax 1-540-788-4956 Webstle Webstle Email 1-540-788-4956 Webstle Email 1-540-788-4956 Webstle Email 1-540-788-4956 Telephone number Association / Organisation ChemTel hc. Emergency telephone number Association / Organisation Other emergency telephone numbers Other emergency	Details of the manufactur	er/importer
Address Telephone Fax 1-540-788-4956 Webstle Webstle Email 1-540-788-4956 Webstle Email 1-540-788-4956 Webstle Email 1-540-788-4956 Telephone number Association / Organisation ChemTel hc. Emergency telephone number Association / Organisation Other emergency telephone numbers Other emergency	Registered company name	CHEMetrics. Inc.
Telephone Fax 1-540-788-9508 Website Email Email Email Email Email Email Emergency telephone number Association / Organisation Emergency telephone number Association / Organisation ChemTel hc. Emergency telephone numbers Other omergency telephone numbers Other omergency telephone numbers Classification of the aubstance or mixture GHS Classification Not Applicable Label elements GHS label elements Not Applicable SIGNAL WORD NOT APPLICABLE Hazard statement(s) Not Applicable Precautionary statement(a) Prevention Not Applicable Procautionary statement(a) Prevention Not Applicable Procautionary statement(b) Immedical advice is needed, have product container or label at hand. Feep out of reach of children.		# 24
Text		A chief processor and the company of
Website www.chemetrics.com Email technical@chemetrics.com Emergency telephone number Association / Organisation ChemTel Inc. Emergency telephone numbers Other emergency telephone numbers Other emergency telephone numbers Other emergency telephone numbers Other emergency telephone numbers Association / Organisation Other emergency telephone numbers Other emergency telephone numbers Association of the substance or mixture GHS Classification Not Applicable Label elements GHS (abel elements Not Applicable SIGNAL WORD NOT APPLICABLE Hazard statement(s) Not Applicable Precautionary statement(s) Prevention Not Applicable Precautionary statement(s) Prevention Not Applicable Precautionary statement(s) Prevention Not Applicable Pret If medical advice is needed, have product container or label at hand. Not Applicable of children.		Maria Semination April A
Emergency telephone number Association / Organisation ChemTel Inc. Emergency telephone numbers Other emergency telephone numbers Other omergency telephone numbers Other omergency telephone numbers Other omergency telephone numbers AU-813-248-0585 SECTION 2 HAZARDS IDENTIFICATION Classification of the aubstance or mixture GHS Classification Not Applicable Label elements GHS jabel elements Not Applicable Not Applicable Not Applicable Not Applicable Precautionary statement(s) Not Applicable Precautionary statement(s) Prevention Not Applicable Precautionary statement(s) Prevention Not Applicable Precautionary statement(s) Not Applicable Precautionary statement(s) Not Applicable Precautionary statement(s) Not Applicable Prevention Not Applicable		The contract of the contract o
Association / Organisation Emergency telephone numbers Other emergency telephone numbers Other emergency telephone numbers Other emergency telephone numbers 401-813-248-0585 SECTION 2 HAZARDS IDENTIFICATION Classification of the aubstance or mixture GHS Classification Not Applicable Label elements GHS isbel elements Not Applicable SIGNAL WORD NOT APPLICABLE Hazard statement(s) Not Applicable Precautionary statement(s) Prevention Not Applicable P101 If medical advice is needed, have product container or label at hand. Keep out of reach of children.		TO THE CONTROL OF THE
Association / Organisation Emergency telephone numbers Other emergency telephone numbers Other emergency telephone numbers +01-813-248-0585 SECTION 2 HAZARDS IDENTIFICATION Classification of the aubstance or mixture GHS Classification Not Applicable Label elements GHS isbel elements Not Applicable SIGNAL WORD NOT APPLICABLE Hazard statement(s) Not Applicable Precautionary statement(s) Prevention Not Applicable P101 If medical advice is needed, have product container or label at hand. Keep out of reach of children.	Emergency telephone nur	nber
Other emergency telephone numbers Other emergency telephone numbers SECTION 2 HAZARDS IDENTIFICATION Classification of the substance or mixture GHS Classification Not Applicable Label elements GHS label elements Not Applicable SIGNAL WORD NOT APPLICABLE Hazard statement(s) Not Applicable Procautionary statement(s) Prevention Not Applicable	array manager array before Marked Array 3	Turkers in the
Other emergency tokephone numbers SECTION 2 HAZARDS IDENTIFICATION Classification of the substance or mixture GHS Classification Not Applicable Label elements GHS label elements Not Applicable SIGNAL WORD NOT APPLICABLE Hazard statement(s) Not Applicable Precautionary statement(s) Prevention Not Applicable		1-800-255-3924
GHS Classification Not Applicable Label elements GHS label elements Not Applicable SIGNAL WORD NOT APPLICABLE Hazard statement(s) Not Applicable Precautionary statement(s) Prevention Not Applicable P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children.		+01-813-248-0585
GHS Classification Not Applicable Label elements GHS label elements Not Applicable SIGNAL WORD NOT APPLICABLE Hazard statement(s) Not Applicable Precautionary statement(s) Prevention Not Applicable P101 If medical advice is needed, have product container or label at hand. P102 Keep out of result of children.		
Label elements GHS label elements Not Applicable SIGNAL WORD NOT APPLICABLE Hazard statement(s) Not Applicable Precautionary statement(s) Prevention Not Applicable P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children.	Classification of the subsi	ance or mixture
SIGNAL WORD NOT APPLICABLE Hazard statement(s) Not Applicable Precautionary statement(s) Prevention Not Applicable P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children.	GHS Classification	Not Applicable
SIGNAL WORD NOT APPLICABLE Hazard statement(s) Not Applicable Precautionary statement(s) Prevention Not Applicable P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children.	Label elements	
Hazard statement(s) Not Applicable Precautionary statement(s) Prevention Not Applicable P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children.	GHS label elements	Not Applicable
Not Applicable Precautionary statement(s) Prevention Not Applicable P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children.	SIGNAL WORD	NOT APPLICABLE
Not Applicable Precautionary statement(s) Prevention Not Applicable P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children.		
Not Applicable P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children.	Not Applicable	
P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children.	Precautionary statement(s)	Prevention
P102 Keep out of reach of children.		
The state of the s	P101	If medical advice is needed, have product container or label at hand.
P103 Read label before use.	P102	Keep out of reach of children.
	P103	Read label before use.

Print Date: 12/03/2015

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

Not Applicable

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name	
26837-42-3	ব	polyvinyl sulfate, potassium salt	FARTHER AND MERCHANISM OF MERCHANISM OF STATE OF
7732-18-5	>99	water	and the second s

SECTION 4 FIRST AID MEASURES

Description of first aid measures

	The state of the s
	If this product comes in contact with eyes:
Eye Contact	▶ Wash out Immediately with water.
Lycomiac	► if irritation continues, seek medical attention.
broker in min species among a transport service among a	► Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
	if skin or hair contact occurs:
Skin Contact	 Flush skin and hair with running water (and soap if available).
deposition - No sept man as a columnial of the september	> Seek medical attention in event of Irritation.
Inhalation	 If furnes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
Ingestion	Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Fire Incompatibility

Extinguishing media

- ► There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

Advice for firefighters	
Fire Fighting	Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. Use fire fighting procedures suitable for surrounding area. DO NOT approach containers suspected to be hot.
Fire/Explosion Hazard	Not considered a significant fire risk, however containers may burn. Not considered a significant fire risk, however containers may burn.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills	Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, Inert material or vermiculite. Wipe up.
Major Spilis	Minor hazard. Clear area of personnel. Alert Fire Brigade and tell them location and nature of hazard. Control personal contact with the substance, by using protective equipment as required. Prevent spillage from entering drains or water ways.
	Personal Protective Equipment advice is contained in Section 8 of the MSDS.

SECTION 7 HANDLING AND STORAGE

Print Date: 12/03/2015

Precautions for safe handling

- ► Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Safe handling Avoid contact with incompatible materials.
 - ▶ When handling, DO NOT eat, drink or smoke.

Wear impact- and splash-resistant eyewear. Breaking the ampoule tip in air when a valve assembly is not attached may cause the glass ampoule to shatter. The device William I Supplied to the second of the second

Other information

For optimum analytical performance, store in the dark and at room temperature.

Conditions for safe storage, including any incompatibilities

Sultable container

- ► Polyethylene or polypropylene container. Packing as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

Storage incompatibility

Avoid contamination of water, foodstuffs, feed or seed.

PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Not Available

EMERGENCY LIMITS

MET i communicación po

Exposure controls

Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly.

Personal protection









Safety classes with side shields Chemical goggles.

Eye and face protection

 Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-ald personnel should be trained in their removal and suitable equipment should be

Skin protection

See Hand protection below

Hands/feet protection

Wear general protective gloves, eg. light weight rubber gloves. The selection of sultable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final

choice. Sultability and durability of glove type is dependent on usage.

Body protection

See Other protection below

No special equipment needed when handling small quantities, OTHERWISE:

Other protection

- Overalls.
- Barrier cream.
- Eyewash unit.
- Thermal hazards

Not Available

Print Date: 12/03/2015

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the computergenerated selection:

Quaternary Ammonium Compound (QAC) Titrets Ampoules

Material	, CPI
BUTYL	A
NEOPRENE	
VITON	A
NATURAL RUBBER	С
PVA	C

^{*} CPI - Chernwatch Performance Index

A: Best Selection
 B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation.

*Where the glove is to be used on a short term, casual or infrequent basis, factors such as

"feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colorless	the residence of the second of	****
Physical state	Liquid	Relative density (Water = 1)	1 10
Odour	Odourless	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-Ignition temperature (°C)	Not Available
pH (as supplied)	8	Decomposition temperature	Not Available
Melting point / freezing point (°C)	0	Viscosity (cSt)	Not Available
initial boiling point and boiling range (°C)	100	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Miscible	pH as a solution	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Of the second second particular and the second				
Reactivity	See section 7	Commence of the commence of th	with the same typical contracts of the same of the same of the same of	
	the standard or many to the standard of the st			
Chemical stability	Product is considered stable and hazardous polymerisation w			
7	I Tradition of the property of	™ not occur.		
DM-494 . C1				
Possibility of hazardous			11	
reactions	See section 7			
10000013				
	and the second s	The second section of the second second		
Conditions to avoid	See section 7		the street of the state of the	
Incompatible materials	See section 7		The second secon	
movimpennie materials	See section 7			
Hazardous decomposition			The state of the s	A COURSE OF STREET
	See section 5			
products				
	A P to company against the company of the company o	Name and Address of the Address of t		

SECTION 11 TOXICOLOGICAL INFORMATION

information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or initation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Not normally a hazard due to non-volatile nature of product
the special section of the special section in the section is a section of the sec	The professional and the second of the secon
Ingestion	The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.
Skin Contact	The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

Issue Date: 04/11/2014

Quaternary Ammonium Compound (QAC) Titrets Ampoules

	Quaternary Ammonium Compound (QAC) Titre	ts Ampoules Print Date: 12/03		
Eye	Although the liquid is not thought to be an irritant (as classified by EC Directives),	direct contact with the eye may produce transient discomfort characterised		
Chronic	by tearing or conjunctival redness (as with windburn). Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.			
A APP SUSUE COMP. LANGUE SEE SEE SEE	The restrictions appeared by an routes and all the restriction of the			
Quaternary Ammonium Compound (QAC) Titrets Ampoules		RRITATION		
Quaternary Ammonium Compound (QAC) Titrets Ampoules	the control of the co	RRITATION		
		y of the one of the state of th		
POLYVINYL SULFATE, POTASSRUM SALT	Asthma-tike symptoms may continue for months or even years after exposure to as reactive alrways dysfunction syndrome (RADS) which can occur following ex diagnosis of RADS include the absence of preceding respiratory disease, in a not within minutes to hours of a documented exposure to the initiant. A reversible airlibronchial hyperreactivity on methacholine challenge testing and the lack of minim in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating in of and duration of exposure to the irritating substance.	posure to high levels of highly initating compound. Key criteria for the in-atopic individual, with abrupt onset of persistent astirma-like symptoms low pattern, on spirometry, with the presence of moderate to severe all ymphocytic inflammation, without ecsinophilia, have also been included		
Quaternary Ammonium Compound (QAC) Titrets Ampoules, WATER	No significant acute toxicological data Identified in literature search.			
	The state of the s			
Acute Toxicity	the state of the s	inogenicity 🛇		
Skin Initation/Corrosion	Rep	roductivity 🛇		
Serious Eye Damage/irritation	© STOT - Single	a Exposure (3		
Respiratory or Skin sensitisation	STOT - Repeate	Marian and American Company of the C		
Mutagenicity	Aspirat	ion Hazard 🛇		
KR STATUS		egend: ✓ – Deta required to make classification available X – Data available but does not fill the criteria for classification G – Data Not Available to make classification		
t Applicable				
CTION 12 ECOLOGIC	AL INFORMATION			
xicity				
rsistence and degradat	ility			
gredient	Persistence: Water/Soil	Persistence: Air		
ater	LOW	LOW		
man distribution the term of the contract of t	A community restriction with the company of the constraint coloring approximation of the constraint of the coloring of the col	and the Apparation and apparation to the first of the second of the seco		
accumulative potential				
gredient	Bloaccumulation			
ster	LOW (LogKOW = -1.38)			
ollity in soil				
gredient	Mobility			
ter	LOW (KOC = 14.3)	mandam on applied to		
CTION 13 DISPOSAL		and the second of the second o		
ste treatment methods				
Product / Packaging disposal	Dispose of according to federal, state, and local regulations.			
- company of the control of				
	INFORMATION			

Marine Pollutant NO

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

ν	ers	ion	N	D:	1	.1

Page 6 of 6

Quaternary Ammonium Compound (QAC) Titrets Ampoules

Issue Date: **04/11/2014** Print Date: **12/03/2015**

SECTION 15 REGULATORY INFORMATION

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

polyvinyl sulfate, potassium salt(26837-42-3) is found on the following regulatory lists

"US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory"

water(7732-18-5) is found on the following regulatory lists

"US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory"

SECTION 16 OTHER INFORMATION

Other information

ingredients with multiple cas numbers

Name	CAS No			
Not Available	Not Available	se of the common and security a	the street and competitive come is a described assuming to the mass of long as	and the color of management to remaining the book of the colors of the c

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chernwatch Classification committee using

A list of reference resources used to assist the committee may be found at:

www.chrmwatch.net/references

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

This document is copyright. Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+61 3) 9572 4700.





Simplicity in Water Analysis

Cover Page for Safety Data Sheet

Thank you for choosing CHEMetrics, Inc. We appreciate your business. In order to best serve your needs for accurate and complete Safety Data, we offer the following information as supplemental to the attached SDS.

SDS No.: S8810T

Version No.: 1.2

Product Name: Valve Assemblies for Quaternary Ammonium Compounds (QAC) Titrets®

Kits

Components of: K-8810, K-8820

Product Descriptions:

Valve Assemblies: Plastic tubing, 8.5 cm length, 3 mm ID, for use with Titrets® ampoules for titrimetric water analysis. Each Valve Assembly contains approximately 0.05 mL of liquid reagent. Test kits contain 30 Valve Assemblies.

Addendum to Section 14 Transport Information:

Shipping container markings and labels for this product, as received, may vary from the contents of section 14 of the SDS for one or both of the following reasons:

- CHEMetrics has packaged this product as Dangerous Goods in Excepted Quantities according to IATA, US DOT, and IMDG regulations.
- CHEMetrics has packaged this product as part of a test kit or reagent set composed of various chemical reagents and elected to ship as UN 3316 Chemical Kit, Hazard Class 9, Packing Group II or III.

In case of reshipment, it is the responsibility of the shipper to determine appropriate labels and markings in accordance with applicable transportation regulations.

Additional Information:

- "Print Date" = Revision Date (expressed as DD/MM/YYYY)
- Test kits and reagents sets may contain additional chemical reagents. See separate SDS(s).

CHEMets®, VACUettes®, Vacu-vials®, and Titrets® are registered trademarks of CHEMetrics Inc.



Valve Assemblies for Quaternary Ammonium Compound (QAC) Titrets Kits CHEMetrics, Inc.

Chernwatch: 9-84689		Chemwatch Hazard Alert Code: 2
SDS No: \$8810T Version No: 1.2 Safety Data Sheet according to Os	SHA HazCom Standard (2012) requirements	Issue Date: 09/10/201 Print Date: 12/03/20 1 Initial Date: 11/10/201 S.GHS,USA.EN
SECTION 1 IDENTIFICAT	ION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UND	ERTAKING
Product Identifier	· · · · · · · · · · · · · · · · · · ·	
Product name	Valve Assemblies for Quaternary Ammonium Compound (QAC) Titrets Kits	
Synonyms	Not Available	
Proper shipping name	Not Applicable	
Chemical formula	Not Applicable	
Other means of Identification	Not Available	The second secon
CAS number	Not Applicable	
Relevant Identified uses o	the substance or mixture and uses advised against	
Refevant identified uses	In the restrict of the control of th	
	Component of water analysis test kits K-8810, K-8820	
Details of the manufacture	/importer	
Registered company name	CHEMetrics, Inc.	
Address	4295 Catlett Road, Midland, VA. 22728 United States	Committee of the Commit
Telephone	1-540-788-9026	
Fax	1-540-788-4858	THE RESERVE OF THE PROPERTY OF
Website	www.chernetrics.com	to be dead an open as a visit where a management of date of the
Email	technical@chemetrics.com	
Emergency telephone numi	per	
Association / Organisation	ChemTel Inc.	
Emergency telephone numbers	1-800-255-3924	
Other emergency telephone numbers	+01-813-248-0585	
SECTION 2 HAZARDS IDEI	And the state of the state of	
reservediton of the substa	ice or mixture	
GHS Classification	Acute Toxicity (Oral) Category 4	
abel elements		10 31 10 10 10 10 10 10 10 10 10 10 10 10 10
The second of th		Consider
CUD label laborate		

SIGNAL WORD | WARNING

Precautionary statement(s) Prevention
P101 If medical adv

P102

H302 Harmful if swallowed

Keep out of reach of children. Read label before use.

If medical advice is needed, have product container or label at hand.

Hazard statement(s)

Version No: 1.2

Page 2 of 7

Issue Date: 09/10/2014 Print Date: 12/03/2015

Valve Assemblies for Quaternary Ammonium Compound (QAC) Titrets Kits

P264	Wash all exposed external body areas th	noon while after handling
P270	transfer to the second of the	- B - B - C - C - C - C - C - C - C - C
	remarkant and the second of th	A DOMESTIC SHOPE IS NOT TO SHOPE TO A STATE OF THE SHOPE
Precautionary statement(and the contract of the contract of the	
P301+P312		TER/doctor/physician/first aider/if you feel unwell.
F330	Pariso (TOUV),	
Precautionary statement(s Not Applicable	s) Storage	
Precautionary statement(s) Disposal	
P501	Dispose of contents/container to authoris	ised chemical landfill or if organic to high temperature incineration
SECTION 3 COMPOSITI	ON / INFORMATION ON INGRED	DIENTS
Substances See section below for composition	on of Mixtures	
Mixtures		
CAS No	%[weight]	Name
111-46-6	>99	<u>diethylene glycol</u>
92-31-9	. 40.1	toluidine blue
SECTION 4 FIRST AID M	IEASURES	
Description of first aid me	easures	
Eye Contact	 Seek medical attention without delay; 	
Skin Contact	If skin or hair contact occurs: ► Flush skin and hair with running wate ► Seek medical attention in event of infil	
Inhalation	If furnes, aerosols or combustion proc Other measures are usually unnecess	ducts are Inhaled remove from contaminated area. Isany.
Ingestion	 For advice, contact a Poisons Information Urgent hospital treatment is likely to be in the mean time, qualified first-aid percondition. If the services of a medical officer or no provided. Further action will be the resident and the provided of th	be needed. arsonnel should treat the patient following observation and employing supportive measures as indicated by the patient's medical doctor are readily available, the patient should be placed in his/her care and a copy of the MSDS should be
	otherwise:	
Treat symptomatically. Polyethylene glycols are gene		

Extinguishing media

- ► Alcohol stable foam.
- ► Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- ▶ Water spray or fog Large fires only.

Special hazards arising from the substrate or mixture

Fire Incompatibility > Avoid contamination with

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Ingredient

diethylene glycol

Material name

Diethylene glycol

Page 3 of 7

Valve Assemblies for Quaternary Ammonium Compound (QAC) Titrets Klts

Issue Date: 09/10/2014

Print Date: 12/03/2015 Advice for firefighters Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Fire Fighting Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. Combustible. Slight fire hazard when exposed to heat or flame. Fire/Explosion Hazard Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic furnes of carbon monoxide (CO). May emit acrid smoke. SECTION 6 ACCIDENTAL RELEASE MEASURES Personal precautions, protective equipment and emergency procedures Slippery when spitt. Remove all ignition sources. Minor Spills Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Slippery when spilt. Moderate hazard. Major Spills Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Personal Protective Equipment advice is contained in Section 8 of the MSDS. SECTION 7 HANDLING AND STORAGE Precautions for safe handling DO NOT allow clothing wet with material to stay in contact with skin Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Safe handling Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. Wear impact- and splash-resistant eyewear. Store in original containers. Keep containers securely sealed. No smoking, naked lights or ignition sources. Other Information Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. For optimum analytical performance, store in the dark and at room temperature. Conditions for safe storage, including any incompatibilities Metal can or drum Suitable container Packaging as recommended by manufacturer. Check all containers are clearly labelled and free from leaks. Figure 3 of their ethers undergo violent decomposition in contact with 70% perchloric acid. This seems likely to involve formation of the glycol perchlorate esters (after scission of eithers) which are explosive, those of ethylene glycol and 3-chloro-1,2-propanedlof being more powerful than glyceryl nitrate, and the Alcohols are incompatible with strong acids, acid chlorides, acid anhydrides, oxidising and reducing agents. Storage incompatibility reacts, possibly violently, with alkaline metals and alkaline earth metals to produce hydrogen react with strong acids, strong caustics, all phatic amines, isocyanates, acetaldehyde, benzoyl peroxide, chromic acid, chromium oxide, dialkytzincs, dichlorine oxide, ethylene oxide, hypochlorous acid, isopropyl chlorocarbonate, lithium tetrahydroaluminate, nitrogen dioxide, pentafluoroguanidine, phosphorus halides, phosphorus pentasulfide, tangerine cil, triethyleiuminium, triisobutylaluminium should not be heated above 49 deg. C. when in contact with aluminium equipment Avoid strong acids, bases. PACKAGE MATERIAL INCOMPATIBILITIES Not Available SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION Control parameters OCCUPATIONAL EXPOSURE LIMITS (OEL) INGREDIENT DATA Not Avaliable **EMERGENCY LIMITS**

TEF1.4

6.9155 ppm

TEEL-2

80 ppm

TEEL-3

250 ppm

Version No. 1.2

Page 4 of 7

Issue Date: 09/10/2014 Print Date: 12/03/2015

Valve Assemblies for Quaternary Ammonium Compound (QAC) Titrets Kits

0-4--4 151 41

Criginal IDE1	Kealedd IDLN
Not Available	Not Available
Not Available	Not Available
effective in protecting workers and will typical. The basic types of engineering controls are: Process controls which involve changing the Enclosure and/or isolation of emission source.	hazard or place a barrier between the worker and the hazard. Well-designed engineering controts can be highly ally be independent of worker interactions to provide this high level of protection. The way a job activity or process is done to reduce the risk. Which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and listion can remove or dilute an air contaminant if designed property.
lenses or restrictions on use, should be	ard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of created for each workplace or task. This should include a review of lens absorption and adsorption for the class of ry experience. Medical and first-eid personnel should be trained in their removal and suitable equipment should be
See Hand protection below	CONTROL OF THE CONTRO
the chemical is a preparation of several subst to the application.	s, e.g. Rubber y depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where tances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final
See Other protection below	
Overalls. P.V.C. apron. Barrier cream. Skin cleansing cream.	
Not Available	
	Engineering controls are used to remove a effective in protecting workers and will typics. The basic types of engineering controls are Process controls which involve changing the Enclosure and/or isolation of emission source "removes" sir in the work environment. Vent Chemical goggles. > Safety glasses with side shields Chemical goggles. > Contact lenses may pose a special haze lenses or restrictions on use, should be chemicals in use and an account of injureadity available. See Hand protection below > Wear chemical protective gloves, e.g. P Wear safety footwear or safety gumboot the selection of suitable gloves does not only the chemical is a preparation of several substo the application. The exact break through time for substances choice. Suitability and durability of glove type is dependent of the protection below > Overalls. > PV.C. apron. > Barrier cream. > Skin deansing cream.

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the computergenerated selection:

Original IDI N

Valve Assemblies for Quaternary Ammonium Compound (QAC) Titrets Kits

	Material	CPI
1	BUTYL	A
	NITRILE	A

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsultable following long-term or frequent use. A qualified practitioner should be consulted.

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-plece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A-AUS P2	-	A-PAPR-AUS / Class 1 P2
up to 50 x ES	. 1	A-AUS / Class 1 P2	-
up to 100 x ES		A-2 P2	A-PAPR-2 P2 A

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl brornide, AX = Low boiling point organic compounds(below 65 degC)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

information on basic physical and chemical properties

Appearance	Blue				
Physical state	Liquid	 Relative d	ensity (Water = 1)	1.12	
Odour	Odourless		rtition coefficient n-octanol / water		
Odour threshold	Not Available	Auto-Ign	ltion temperature (°C)	224	
pH (as supplied)	Not Available		Decomposition temperature	Not Available	

Page **5** of **7**

Valve Assemblies for Quaternary Ammonium Compound (QAC) Titrets Kits

Issue Date: **09/10/2014**Print Date: **12/03/2015**

Meiting point / freezing point (°C		
point (°C		
initial boiling point and	Viacosity (cSt)	Not Available
boiling range (°C	· · · · · · · · · · · · · · · · · · ·	Not Available
Flash point (°C)	Taste	Not Available
Evaporation rate	Explosive properties	Not Available
Flammability	Not Applicable Oxidiaing properties	Not Available
Upper Explosive Limit (%)	10.8 Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.6 Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available Gas group	Not Available
Solubility in water (g/L)	Miscible pH as a solution	Not Available
Vapour density (Air = 1)	Not Available VOC g/L	Not Available
ECTION 10 STABILITY	the property of the property o	THE STREET
Reactivity	See section 7	
Chemical stability	Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.	
Possibility of hazardous reactions	See section 7	
Conditions to avoid	See section 7	
Incompatible materials	See section 7	
Hazardous decomposition	See section 5	
ormation on toxicologic	The material is not thought to produce either adverse health effects or initiation of the respiratory tract using animal models). Nevertheless, adverse systemic effects have been produced following exposure practice requires that exposure be kept to a minimum and that utilities exist.	of animals by at least one other route and good hygiens
W. Indoor 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	The material is not thought to produce either adverse health effects or imitation of the respiratory tract using animal models). Nevertheless, adverse systemic effects have been produced following exposure practice requires that exposure be kept to a minimum and that suitable control measures be used in an Aliphatic alcohols with more than 3-carbons cause headache, dizziness, drowsiness, muscle weakness behavioural changes. Secondary respiratory depression and failure, as well as low blood pressure and Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less that damage to the health of the individual. If swallowed, the toxic effects of glycols (dihydric alcohols) are similar to those of alcohol, with depression degenerative changes in the liver and kidney.	of animals by at least one other route and good hygien occupational setting, and definium, central depression, coma, seizures and irregular heart rhythms, may follow. han 150 gram may be fatal or may produce serious on of the central nervous system, nausea, vorniting, an
Inhaled	The material is not thought to produce either adverse health effects or irritation of the respiratory tract using animal models). Nevertheless, adverse systemic effects have been produced following exposure in practice requires that exposure be kept to a minimum and that suitable control measures be used in an Aliphatic alcohols with more than 3-carbons cause headache, dizziness, drowsiness, muscle weakness behavioural changes. Secondary respiratory depression and failure, as well as low blood pressure and Accidental Ingestion of the material may be harmful; animal experiments indicate that ingestion of less the damage to the health of the individual. If swallowed, the toxic effects of glycols (dihydric alcohols) are similar to those of alcohol, with depression degenerative changes in the liver and kidney. Overexposure to non-ring alcohols causes nervous system symptoms. These include headache, muscle delinium and coma. Skin contact is not thought to produce harmful health effects (as classified under EC Directives using an identified following exposure of animals by at least one other route and the material may still produce her abrasions. Most liquid alcohols appear to act as primary skin initiants in humans. Significant percutaneous absorptit Open cuts, abraded or irritated skin should not be expressed to the indepted.	of animals by at least one other route and good hygienic occupational setting, and definium, central depression, coma, seizures and irregular heart rhythms, may follow. In 150 gram may be fatal or may produce serious on of the central nervous system, nausea, vomiting, and a weakness and inco-ordination, giddiness, confusion, and models). Systemic harm, however, has been alth damage following entry through wounds, lesions or occurs in rabbits but not apparently in man.
Inhaled	The material is not thought to produce either adverse health effects or imitation of the respiratory tract using animal models). Nevertheless, adverse systemic effects have been produced following exposure practice requires that exposure be kept to a minimum and that suitable control measures be used in an Aliphatic alcohols with more than 3-carbons cause headache, dizziness, drowsiness, muscle weakness behavioural changes. Secondary respiratory depression and failure, as well as low blood pressure and Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less the damage to the health of the individual. If swallowed, the toxic effects of glycols (dihydric alcohols) are similar to those of alcohol, with depression degenerative changes in the liver and kidney. Overexposure to non-ring alcohols causes nervous system symptoms. These include headache, muscle delinium and coma. Skin contact is not thought to produce harmful health effects (as classified under EC Directives using an identified following exposure of animals by at least one other route and the material may still produce herabrasions. Most liquid alcohols appear to act as primary skin initiants in humans. Significant percutaneous absorptit Open cuts, abraded or imitated skin should not be exposed to this material. Although the liquid is not thought to be an imitant (as classified by EC Directives).	of animals by at least one other route and good hygien occupational setting. a and definition, central depression, coma, seizures and image of the central depression, coma, seizures and image of the central nervous system, nausea, vorniting, and weakness and inco-ordination, giddiness, confusion, and models). Systemic harm, however, has been alth damage following entry through wounds, lesions of ion occurs in rabbits but not apparently in man.
Inhaled Ingestion Skin Contact Eye	The material is not thought to produce either adverse health effects or irritation of the respiratory tract using animal models). Nevertheless, adverse systemic effects have been produced following exposure practice requires that exposure be kept to a minimum and that suitable control measures be used in an Aliphatic alcohols with more than 3-carbons cause headache, dizziness, drowsiness, muscle weakness behavioural changes. Secondary respiratory depression and failure, as well as low blood pressure and Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less the damage to the health of the individual. If swallowed, the toxic effects of glycols (dihydric alcohols) are similar to those of alcohol, with depression degenerative changes in the liver and kidney. Overexposure to non-ring alcohols causes nervous system symptoms. These include headache, muscle delirium and coma. Skin contact is not thought to produce harmful health effects (as classified under EC Directives using an identified following exposure of animals by at least one other route and the material may still produce headsaches. Most liquid alcohols appear to act as primary skin initiants in humans. Significant percutaneous absorptit Open cuts, abraded or irritated skin should not be exposed to this material.	of animals by at least one other route and good hygienic occupational setting, and definition, central depression, coma, seizures and irregular heart rhythms, may follow. In an 150 gram may be fatal or may produce serious on of the central nervous system, nausea, vorniting, and a weakness and inco-crotination, giddiness, confusion, aimal models). Systemic harm, however, has been alth damage following entry through wounds, lesions of on occurs in rabbits but not apparently in man. They with harmful effects.
Inhaled Ingestion Skin Contact Eye Chronic	The material is not thought to produce either adverse health effects or irritation of the respiratory tract using animal models). Nevertheless, adverse systemic effects have been produced following exposure practice requires that exposure be kept to a minimum and that suitable control measures be used in an Aliphatic alcohols with more than 3-carbons cause headache, dizziness, drowsiness, muscle weakness behavioural changes. Secondary respiratory depression and failure, as well as low blood pressure and Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less the damage to the health of the individual. If swallowed, the toxic effects of glycots (dihydric alcohols) are similar to those of alcohol, with depression degenerative changes in the liver and kidney. Overexposure to non-ring alcohols causes nervous system symptoms. These include headache, muscle delinium and coma. Skin contact is not thought to produce harmful health effects (as classified under EC Directives using an identified following exposure of animals by at least one other route and the material may still produce heat abrasions. Most flouid alcohols appear to act as primary skin initiants in humans. Significant percutaneous absorptition of the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injunctified the liquid is not thought to be an initiant (as classified by EC Directives), direct contact with the by tearing or conjunctival redness (as with windown).	of animals by at least one other route and good hygien occupational setting, and definition, central depression, coma, seizures and irregular heart rhythms, may follow. In an 150 gram may be fatal or may produce serious on of the central nervous system, nausea, vorniting, and a weakness and inco-crotination, giddiness, confusion, aimal models). Systemic harm, however, has been alth damage following entry through wounds, lesions of on occurs in rabbits but not apparently in man. They with harmful effects.
Inhaled Ingestion Skin Contact Eye Chronic Valve Assemblies for Quaternary Ammondum	The material is not thought to produce either adverse health effects or irritation of the respiratory tract using animal models). Nevertheless, adverse systemic effects have been produced following exposure practice requires that exposure be kept to a minimum and that suitable control measures be used in an Aliphatic alcohols with more than 3-carbons cause headache, dizziness, drowsiness, muscle weakness behavioural changes. Secondary respiratory depression and failure, as well as low blood pressure and Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less the damage to the health of the individual. If swallowed, the toxic effects of glycots (dihydric alcohols) are similar to those of alcohol, with depression degenerative changes in the liver and kidney. Overexposure to non-ring alcohols causes nervous system symptoms. These include headache, muscle delinium and coma. Skin contact is not thought to produce harmful health effects (as classified under EC Directives using an identified following exposure of animals by at least one other route and the material may still produce heat abrasions. Most flouid alcohols appear to act as primary skin initiants in humans. Significant percutaneous absorptition of the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injunctified the liquid is not thought to be an initiant (as classified by EC Directives), direct contact with the by tearing or conjunctival redness (as with windown).	of animals by at least one other route and good hygienic occupational setting, and definition, central depression, coma, seizures and irregular heart rhythms, may follow. In an 150 gram may be fatal or may produce serious on of the central nervous system, nauses, vomitting, and a weakness and inco-crotination, giddiness, confusion, aimal models). Systemic harm, however, has been alth damage following entry through wounds, lesions or occurs in rabbits but not apparently in man. They with harmful effects.
Skin Contact Eye Chronic Valve Assemblies for Quaternary Ananonium compound (QAC) Titrets	The material is not thought to produce either adverse health effects or irritation of the respiratory tract using animal models). Nevertheless, adverse systemic effects have been produced following exposure practice requires that exposure be kept to a minimum and that suitable control measures be used in an Aliphatic alcohols with more than 3-carbons cause headache, dizziness, drowsiness, muscle weakness behavioural changes. Secondary respiratory depression and failure, as well as low blood pressure and Accidental Ingestion of the material may be harmful; animal experiments indicate that ingestion of less the damage to the health of the individual. If swallowed, the toxic effects of glycols (dihydric alcohols) are similar to those of alcohol, with depression degenerative changes in the liver and kidney. Overexposure to non-ring alcohols causes nervous system symptoms. These include headache, muscle delinium and coma. Skin contact is not thought to produce harmful health effects (as classified under EC Directives using an identified following exposure of animals by at least one other route and the material may still produce headsaches. Most liquid alcohols appear to act as primary skin initiants in humans. Significant percutaneous absorptions of the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injunctival redness (as with windburn). Although the liquid is not thought to be an initiant (as classified by EC Directives), direct contact with the by tearing or conjunctival redness (as with windburn).	of animals by at least one other route and good hygien occupational setting, and delirium, central depression, coma, seizures and irregular heart rhythms, may follow. In an 150 gram may be fatal or may produce serious on of the central nervous system, nausea, vorniting, and a weakness and inco-ordination, giddiness, confusion, aimal models). Systemic harm, however, has been alth damage following entry through wounds, lesions of on occurs in rabbits but not apparently in man. Try with harmful effects.

Valve Assemblies for Quaternary Arrimonium Compound (QAC) Titrets Kits	TOXICITY	IRRITATION
The second secon		
TOLUIDINE BLUE	Hamster cell mutagen	
Valve Assemblies for Quaternary Ammonium Compound (QAC) Titrets Kits, DIETHYLENE GLYCOL	The material may cause skin initiation after scaling and thickening of the skin.	r protonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles,
Acute Toxicity		
Skin irritation/Corresion	8	Carcinogenicity (
	3	Reproductivity 6

Page 6 of 7

Issue Date: **09/10/2014** Print Date: **12/03/2015**

Valve Assemblies for Quaternary Ammonium Compound (QAC) Titrets Kits

Serious Eye Damage/irritation	6	STOT - Single Exposure	0
Respiratory or Skin sensitisation	6	STOT - Repeated Exposure	0
Mutagenicity	6	Aspiration Hazard	O
The way to the control of the contro		Legend:	P - Date required to make classification available Date available but does not fill the criteria for classification Date Not Available to make classification
CMR STATUS			
Not Applicable			
SECTION 12 ECOLOGIC	CAL INFORMATION		man out all and
Toxicity DO NOT discharge into sewer of	or waterways.		
Persistence and degradal	bility		
Ingredient	Persistence: Water/Soil	Р	ersistence: Air
diethylene glycol	LOW	U	ow .
Bloaccumulative potentia	1		
Ingredient	Bioaccumulation		
diethylene glycol	LOW (BCF = 180)	Bull differential and problems, you have been seen to be a community or an extension of the community of the	and a second sec
Mobility in soil			
Ingredient	Mobility		
diethylene glycol	HIGH (KOC = 1)	- APPEN 1994 AND 1997 ON SOUTHWESTERN SERVICE AND ADDRESS.	controller country and in the control country and in the public country and in the countr
SECTION 13 DISPOSAL	CONSIDERATIONS		
Waste treatment methods			
Product / Packaging disposal	Dispose of according to federal, state, and local regu	lations.	
SECTION 14 TRANSPOR	T INFORMATION		
Labels Required			
Marine Pollutant	NO		
Land transport (DOT): NOT	REGULATED FOR TRANSPORT OF DANGER	OUS GOODS	
	GR): NOT REGULATED FOR TRANSPORT OF		
	/ GGVSee): NOT REGULATED FOR TRANSPOR		
Sea transport (Impo-code	1 GGT3ee). NOT REGULATED FOR TRANSPOR	(1 OF DANGEROUS GOODS	
SECTION 15 REGULATOR	RY INFORMATION		
Safety, health and environ	mental regulations / legislation specific for the	ne substance or mixture	71 72
distinylene glycol(111-46-6) is found on the following regulatory lists	"US AIHA Workplace Environmental Exposure Levels (WE	ELs)","US Toxic Substances Control Ac	t (TSCA) - Chemical Substance Inventory*
totuldine blue(92-31-9) is found on the following regulatory lists	"US Toxic Substances Control Act (TSCA) - Chemical Sub-	stance inventory"	
SECTION 16 OTHER INFO	PRMATION		
Other information			
Ingredients with multiple c	as numbers		
Name	CAS No		
Not Available	Not Available	nerve amende a gere we go .	

A list of reference resources used to assist the committee may be found at:

www.chernwatch.net/references

Version No: 1.2

Page 7 of 7

Issue Date: 09/10/2014

Valve Assemblies for Quaternary Ammonlum Compound (QAC) Titrets Kits

Print Date: 12/03/2015

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

This document is copyright. Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+61 3) 9572 4700.