

BIOSYSTEMS

Wash Buffer V USA

Leica Biosystems

Version No: 1.6

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

Chemwatch Hazard Alert Code: 0

Issue Date: 09/02/2015 Print Date: 09/02/2015 Initial Date: 05/11/2015 S.GHS.USA.EN

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

Product Identifier

Product name	Wash Buffer V USA
Synonyms	LK-141B, C
Other means of identification	Not Available

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

Relevant identified uses Use according to manufacturer's directions.

Details of the supplier of the safety data sheet

Registered company name	Leica Biosystems	
Address	700 Leider Lane Buffalo Grove IL 60089 United States	
Telephone	800-248-0123	
Fax	Not Available	
Website	www.LeicaBiosystems.com	
Email	kreatech-support@leicabiosystems.com	

Emergency telephone number

Association / Organisation	Leica Biosystems
Emergency telephone numbers	800-248-0123
Other emergency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

CHEMWATCH HAZARD RATINGS

	Min	n Max		
Flammability	0			
Toxicity	0		0 = Minimum	
Body Contact	0		1 = Low	
Reactivity	0		2 = Moderate	
Chronic	0		3 = High 4 = Extreme	

GHS Classification Eye Irritation Category 2A

Label elements





SIGNAL WORD WARNING

H319 Causes serious eye irritation

Precautionary statement(s) Prevention

P280	Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement(s) Response	

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.

Precautionary statement(s) Storage

Precautionary statement(s) Disposal

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
7732-18-5	80-100	water
7647-14-5	<10	sodium chloride
68-04-2	<5	sodium citrate
127087-87-0	<1	mono-p-nonylphenyl ether, branched, ethoxylated

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	If this product comes in contact with eyes: Wash out immediately with water. If irritation continues, seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin or hair contact occurs: ► Flush skin and hair with running water (and soap if available). ► Seek medical attention in event of irritation.
Inhalation	 If fumes, 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.

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

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

Fire Incompatibility None known.

Advice for firefighters

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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. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use. 	
Fire/Explosion Hazard	 Non combustible. Not considered a significant fire risk, however containers may burn. May emit poisonous fumes. 	

Page 3 of 8

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. Place in a suitable, labelled container for waste disposal. 	
Major Spills	Not Applicable	
	Personal Protective Equipment advice is contained in Section 8 of the SDS.	

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	 Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. DO NOT allow material to contact humans, exposed food or food utensils. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered separately. Launder contaminated clothing before re-use. Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this MSDS. Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
Other information	Not Applicable

Conditions for safe storage, including any incompatibilities

Suitable container	 Polyethylene or polypropylene container. Packing as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	None known

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
sodium chloride	Chloride; (Chloride(1-); Chloride ions)	1 ppm	2.52 ppm	30 ppm
sodium chloride	Sodium chloride	11 mg/m3	120 mg/m3	1100 mg/m3
sodium citrate	Citric acid, trisodium salt, dihydrate	9.3 mg/m3	100 mg/m3	610 mg/m3
sodium citrate	Trisodium citrate	9.3 mg/m3	100 mg/m3	610 mg/m3
mono-p-nonylphenyl ether, branched, ethoxylated	Nonylphenol, 4-, branched, ethoxylated	1.9 mg/m3	20 mg/m3	120 mg/m3

Ingredient	Original IDLH	Revised IDLH
water	Not Available	Not Available
sodium chloride	Not Available	Not Available
sodium citrate	Not Available	Not Available
mono-p-nonylphenyl ether, branched, ethoxylated	Not Available	Not Available

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. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure.
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General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air)	0.25-0.5 m/s (50-100 f/min)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood - local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

m		0	W.
	60		
		100-100	

Eye and face protection	 Safety glasses with side shields Chemical goggles. 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-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]
Skin protection	See Hand protection below
Hands/feet protection	 The selection of suitable 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. Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: frequency and duration of contact, chemical resistance of glove material, glove thickness and dexterity Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent). When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use. Contaminated gloves should be replaced. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended. Wear chemical protective gloves, e.g. PVC. Wear chemical protective gloves, e.g. Rubber
Body protection	See Other protection below
Other protection	No special equipment needed when handling small quantitites.
Thermal hazards	Not Available

Respiratory protection

Personal protection

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

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance Not Available

Physical state	Liquid	Relative density (Water = 1)	Not Available
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	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)	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Chemical stability Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur. Possibility of hazardous	
Possibility of hazardous	
reactions See section 7	
Conditions to avoid See section 7	
Incompatible materials See section 7	
Hazardous decomposition products See section 5	

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation 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
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 liquid may be miscible with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives . Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Еуе	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 by tearing or conjunctival redness (as with windburn).
Chronic	Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

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Wash Buffer V USA	TOXICITY Not Available	IRRITATION Not Available
water	TOXICITY Oral (rat) LD50: >90000 mg/kg ^[2]	IRRITATION Not Available
sodium chloride	TOXICITY Dermal (rabbit) LD50: >10000 mg/kg ^[1] Oral (rat) LD50: 3000 mg/kgd ^[2]	IRRITATION Eye (rabbit): 10 mg - moderate Eye (rabbit):100 mg/24h - moderate Skin (rabbit): 500 mg/24h - mild
sodium citrate	TOXICITY dermal (rat) LD50: >2000 mg/kg ^[1] Oral (mouse) LD50: 5400 mg/kg ^[1]	IRRITATION Not Available

	TOXICITY	IRRITATION	
nono-p-nonylphenyl ether, branched, ethoxylated	Oral (rat) LD50: 1310 mg/kgE ^[2]	Eye (rabbit): S	EVERE
		Skin (rabbit): N	<i>/</i> ild
Legend:	Value obtained from Europe ECHA Registered Substan extracted from RTECS - Register of Toxic Effect of chemical S		ined from manufacturer's SDS. Unless otherwise specified da
SODIUM CHLORIDE	as reactive airways dysfunction syndrome (RADS) whi diagnosis of RADS include the absence of preceding res within minutes to hours of a documented exposure to th bronchial hyperreactivity on methacholine challenge testii in the criteria for diagnosis of RADS. RADS (or asthma) of and duration of exposure to the irritating substance. In concentrations of irritating substance (often particulate dyspnea, cough and mucus production. The material may produce moderate eye irritation leadi	ch can occur following exposure spiratory disease, in a non-atopic in he irritant. A reversible airflow pa ng and the lack of minimal lympho) following an irritating inhalation is ndustrial bronchitis, on the other h in nature) and is completely rever- ing to inflammation. Repeated or	ial ceases. This may be due to a non-allergenic condition know to high levels of highly irritating compound. Key criteria for th dividual, with abrupt onset of persistent asthma-like symptom ttern, on spirometry, with the presence of moderate to sever cytic inflammation, without eosinophilia, have also been include s an infrequent disorder with rates related to the concentratio and, is a disorder that occurs as result of exposure due to hig rsible after exposure ceases. The disorder is characterised I prolonged exposure to irritants may produce conjunctivitis. ce on contact skin redness, swelling, the production of vesicles
SODIUM CITRATE	for citric acid (and its inorganic citrate salts) Based on many experimental data in animals and on human experience, citric acid is of low acute toxicity. The NOAEL for repeated dose toxicity for rats is 1200 mg/kg/d. The major, reversible (sub)chronic toxic effects seem to be limited to changes in blood chemistry and metal absorption/excretion kinetics. Citric acid is not suspected of being a carcinogen nor a reprotoxic or teratogenic agent. The NOAEL for reproductive toxicity for rats is 2500 mg/kg/d. Further, it is not mutagenic <i>in vitro</i> and <i>in vivo</i> . Also, the sensitising potential is seen as low. In contrast, irritation, in particular of the eyes but also of the respiratory pathways and the skin, is the major toxicological hazard presented by citric acid		
	The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles scaling and thickening of the skin. for linear material: Maternal effects, effects on fertility recorded.		
MONO-P-NONYLPHENYL ETHER, BRANCHED, ETHOXYLATED	The material may cause skin irritation after prolonged or n scaling and thickening of the skin.	repeated exposure and may produ	
ETHER, BRANCHED,	The material may cause skin irritation after prolonged or n scaling and thickening of the skin.	repeated exposure and may produ recorded.	
ETHER, BRANCHED, ETHOXYLATED Wash Buffer V USA & WATER	The material may cause skin irritation after prolonged or n scaling and thickening of the skin. for linear material: Maternal effects, effects on fertility n No significant acute toxicological data identified in literatu	repeated exposure and may produ recorded. ure search.	ce on contact skin redness, swelling, the production of vesicles
ETHER, BRANCHED, ETHOXYLATED Wash Buffer V USA & WATER Acute Toxicity	The material may cause skin irritation after prolonged or n scaling and thickening of the skin. for linear material: Maternal effects, effects on fertility n	repeated exposure and may produ recorded. ure search. Carcinogenicity	
ETHER, BRANCHED, ETHOXYLATED Wash Buffer V USA & WATER	The material may cause skin irritation after prolonged or n scaling and thickening of the skin. for linear material: Maternal effects, effects on fertility n No significant acute toxicological data identified in literatu	repeated exposure and may produ recorded. ure search.	ce on contact skin redness, swelling, the production of vesicles
ETHER, BRANCHED, ETHOXYLATED Wash Buffer V USA & WATER Acute Toxicity Skin Irritation/Corrosion Serious Eye	The material may cause skin irritation after prolonged or n scaling and thickening of the skin. for linear material: Maternal effects, effects on fertility n No significant acute toxicological data identified in literatu	repeated exposure and may produ recorded. ure search. Carcinogenicity Reproductivity	ce on contact skin redness, swelling, the production of vesicles

X – Data available but does not fill the criteria for classification

🚫 – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient Persistence: Water/Soil Persistence: Air		Persistence: Air
water	LOW	LOW
sodium chloride	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
water	LOW (LogKOW = -1.38)
sodium chloride	LOW (LogKOW = 0.5392)

Mobility in soil

Ingredient	Mobility
water	LOW (KOC = 14.3)
sodium chloride	LOW (KOC = 14.3)

SECTION 13 DISPOSAL CONSIDERATIONS

	Wash	Buffer	۷	USA
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Product / Packaging disposal	Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. A Hierarchy of Controls seems to be common - the user should investigate: • Reduction • Reuse • Recycling • Disposal (if all else fails) This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shell life considerations should also be applied in making decisions of this type Note that properties of a material may change in use, and recycling or reuse may not always be appropriate. • DO NOT allow wash water from cleaning or process equipment to enter drains. • It may be necessary to collect all wash water for treatment before disposal. • In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. • Where in doubt contact the responsible authority. • Recycle wherever possible. • Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility.
	 Where in doubt contact the responsible authority. Recycle wherever possible. Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or incineration in a licenced apparatus (afte admixture with suitable combustible material).
	Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

SECTION 14 TRANSPORT INFORMATION

Labels Required		
Marine Pollutant NO		
Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS		
Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS		
Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS		

SECTION 15 REGULATORY INFORMATION

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

WATER(7732-18-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

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

SODIUM CHLORIDE(7647-14-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

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

SODIUM CITRATE(68-04-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US EPA Carcinogens Listing

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

MONO-P-NONYLPHENYL ETHER, BRANCHED, ETHOXYLATED(127087-87-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

Federal Regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SECTION 311/312 HAZARD CATEGORIES

Immediate (acute) health hazard	YES
Delayed (chronic) health hazard	NO
Fire hazard	NO
Pressure hazard	NO
Reactivity hazard	NO

US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)

None Reported State Regulations

US. CALIFORNIA PROPOSITION 65

None Reported

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (mono-p-nonylphenyl ether, branched, ethoxylated; water; sodium citrate; sodium chloride)
China - IECSC	Y

Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS N (mono-p-nonylphenyl ether, branched, ethoxylated; water)	
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
Legend: Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exemplified ingredients in brackets)	

SECTION 16 OTHER INFORMATION

Other information

Ingredients with multiple cas numbers

Name	CAS No
sodium chloride	14762-51-7, 16887-00-6, 7647-14-5
sodium citrate	114456-61-0, 6132-04-3, 68-04-2, 6858-44-2

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

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

found at: www.chemwatch.net

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.

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