Northfork GECA Laundry Powder

ACCO Brands Australia Pty Ltd

Version No: 1.2 Safety Data Sheet according to WHS and ADG requirements

Issue Date: 16/01/2018 Print Date: 15/03/2016 Initial Date: 10/02/2016 S.GHS.AUS.EN

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

Product Identifier

Product name	Northfork GECA Laundry Powder
Synonyms	Not Available
Other means of identification	5kg - 638141532

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

Relevant identified uses Detergent for machine washing.

Details of the supplier of the safety data sheet

Registered company name	ACCO Brands Australia Pty Ltd		
Address 17-19 Waterloo Street, Queanbeyan NSW 2620 Australia Telephone +61-2-96740900 Fax +61-2-96740910 Website www.accobrands.com.au			
		Email	sds.anz@acco.com

Emergency telephone number

Association / Organisation	Poisons Information Line
Emergency telephone numbers	13 11 26
Other emergency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Poisons Schedule	Not Applicable
Classification ^[1]	Skin Corrosion/Irritation Category 1B, Serious Eye Damage Category 1, Acute Aquatic Hazard Category 2
Legend: 1. Classified by Chernwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI	

Label elements

GHS label elements	
SIGNAL WORD	DANGER

Hazard statement(s)

H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H401	Toxic to aquatic life

Precautionary statement(s) Prevention

P101	If medical advice is needed, have product container or label at hand.	
P102 Keep out of reach of children.		
P103 Read label before use.		
P260 Do not breathe dust/fume/gas/mist/vapours/spray.		

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P273 Avoid release to the environment.	
Precautionary statement(s)) Response
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.	

P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.	
P303+P361+P353	P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P310	Immediately call a POISON CENTER or doctor/physician.	
P363	53 Wash contaminated clothing before reuse.	
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.	

P405 Store locked up.

Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.	
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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
497-19-8	>60	sodium carbonate
68131-39-5	<10	alcohols C12-15 ethoxylated
6834-92-0	10-30	sodium metasilicate, anhydrous
7757-82-6	10-30	sodium sulfate

SECTION 4 FIRST AID MEASURES

Description of first aid measures		
Eye Contact	If this product comes in contact with the eyes: Immediately hold eyelids apart and flush the eye continuously with running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.	
Skin Contact	 If skin or hair contact occurs: Immediately flush body and clothes with large amounts of water, using safety shower if available. Quickly remove all contaminated clothing, including footwear. Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. Transport to hospital, or doctor. 	
Inhalation	 If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor, without delay. 	
Ingestion	 For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Transport to hospital or doctor without delay. 	

Indication of any immediate medical attention and special treatment needed

For acute or short-term repeated exposures to highly alkaline materials:

▶ Respiratory stress is uncommon but present occasionally because of soft tissue edema.

Unless endotracheal intubation can be accomplished under direct vision, cricothyroidotomy or tracheotomy may be necessary.

Oxygen is given as indicated.

▶ The presence of shock suggests perforation and mandates an intravenous line and fluid administration.

• Damage due to alkaline corrosives occurs by liquefaction necrosis whereby the saponification of fats and solubilisation of proteins allow deep penetration into the tissue. Alkalis continue to cause damage after exposure.

INGESTION:

Milk and water are the preferred diluents

No more than 2 glasses of water should be given to an adult.

• Neutralising agents should never be given since exothermic heat reaction may compound injury.

 * Catharsis and emesis are absolutely contra-indicated.

* Activated charcoal does not absorb alkali.

* Gastric lavage should not be used.

Supportive care involves the following:

• Withhold oral feedings initially.

▶ If endoscopy confirms transmucosal injury start steroids only within the first 48 hours.

▶ Carefully evaluate the amount of tissue necrosis before assessing the need for surgical intervention.

Patients should be instructed to seek medical attention whenever they develop difficulty in swallowing (dysphagia).

SKIN AND EYE:

Injury should be irrigated for 20-30 minutes.

Eye injuries require saline. [Ellenhorn & Barceloux: Medical Toxicology]

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- Water spray or fog.
- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

Special hazards arising from the substrate or mixture

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

Advice for firefighters

Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water courses. Use water delivered as a fine spray to control fire and cool adjacent 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	 Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions. Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions). Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited - particles exceeding this limit will generally not form flammable dust clouds; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion. In the same way as gases and vapours, dusts in the form of a cloud are only ignitable over a range of concentrations; in principle, the concepts of lower explosive limit (LEL) and upper explosive limit (UEL) are applicable to dust clouds but only the LEL is of practical use; - this is because of the inherent difficulty of achieving homogeneous dust clouds at high temperatures (for dusts the LEL is often called the "Minimum Explosible Concentration", MEC). When processed with flammable liquids/vapors/mists,ignitable (hybrid) mixtures may be formed with combustible dusts. Ignitable mixtures will increase the rate of explosion pressure rise and the Minimum Ignition Energy (the minimum amount of energy required to ignite dust clouds - MIE) will be lower than the pure dust in air mixture. The Lower Explosive Limit (LEL) of the vapour/dust mixture wi

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills	 Environmental hazard - contain spillage. Clean up all spills immediately. Avoid breathing dust and contact with skin and eyes. Wear protective clothing, gloves, safety glasses and dust respirator. Use dry clean up procedures and avoid generating dust. Sweep up, shovel up or Vacuum up (consider explosion-proof machines designed to be grounded during storage and use). Place spilled material in clean, dry, sealable, labelled container.
Major Spills	 Environmental hazard - contain spillage. Moderate hazard. CAUTION: Advise personnel in area. Alert Emergency Services and tell them location and nature of hazard. Control personal contact by wearing protective clothing. Prevent, by any means available, spillage from entering drains or water courses. Recover product wherever possible. IF DRY: Use dry clean up procedures and avoid generating dust. Collect residues and place in sealed plastic bags or other containers for disposal.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

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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. Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions) Minimise airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame. Establish good housekeeping practices. Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds. Use continuous suction at points of dust generation to capture and minimise the accumulation of dusts. Particular attention should be given to overhead and hidden horizontal surfaces to minimise the probability of a "secondary" explosion. According to NFPA Standard 654, dust layers 1/32 in.(0.8 mm) thick can be sufficient to warrant immediate cleaning of the area. Do not use air hoses for cleaning.
Other information	 Store in original containers. Keep containers securely sealed. Store in a cool, dry area protected from environmental extremes. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS. For major quantities: Consider storage in bunded areas - ensure storage areas are isolated from sources of community water (including stormwater, ground water, lakes and streams). Ensure that accidental discharge to air or water is the subject of a contingency disaster management plan; this may require consultation with local authorities.

Conditions for safe storage, including any incompatibilities

Suitable container	 DO NOT use aluminium or galvanised containers Polyethylene or polypropylene container. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	 Sodium carbonate: aqueous solutions are strong bases reacts violently with finely divided aluminium, fluorine, lithium, phosphorus pentoxide, sulfuric acid reacts with fluorine gas at room temperature, generating incandescence. is incompatible with organic anhydrides, acrylates, alcohols, aldehydes, alkylene oxides, substituted allyls, cellulose nitrate, cresols, caprolactam solution, epichlorohydrin, ethylene dichloride, isocyanates, ketones, glycols, nitrates, phenols, phosphorus pentoxide 2,4,6-trinitrotoluene forms explosive material with 2,4,5-trinitrotoluene and increases the thermal sensitivity of 2,4,6-trinitrotoluene (TNT) by decreasing the temperature of explosion from 297 deg. C to 218 deg. C attacks metal. In presence of moisture, the material is corrosive to aluminium, zinc and tin producing highly flammable hydrogen gas. Avoid strong acids, acid chlorides, acid anhydrides and chloroformates. Avoid contact with copper, aluminium and their alloys. Avoid reaction with oxidising agents

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 carbonate	Sodium carbonate		12 mg/m3	130 mg/m3	780 mg/m3
sodium tripolyphosphate	Sodium tripolyphosphate		0.22 mg/m3	2.5 mg/m3	620 mg/m3
dodecylbenzenesulfonic acid	Dodecylbenzene sulfonic acid; (Laurylbenzenesulfonic acid)		2 mg/m3	21 mg/m3	130 mg/m3
sodium metasilicate, anhydrous	Sodium metasilicate pentahydrate		45 mg/m3	45 mg/m3	170 mg/m3
sodium metasilicate, anhydrous	Sodium silicate; (Sodium metasilicate)		18 mg/m3	230 mg/m3	230 mg/m3
sodium sulfate	Sodium sulfate, anhydrous		11 mg/m3	130 mg/m3	650 mg/m3
Ingredient	Original IDLH Revised I		IDLH		
sodium carbonate	Not Available	Not Availa	Not Available		
sodium tripolyphosphate	Not Available	Not Available			
dodecylbenzenesulfonic acid	Not Available	Not Available			
alcohols C12-15 ethoxylated	Not Available	Not Available			
sodium metasilicate, anhydrous	Not Available	Not Availa	Not Available		
sodium sulfate	Not Available	Not Availa	Not Available		

Appropriate engineering 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 "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation syste	can be highly
 controls the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain powdered by mutual friction. 	em must match
Personal protection	
► Chemical goggles.	
 Full face shield may be required for supplementary but never for primary protection of eyes. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equip readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thorou 	n for the class of ment should be should be removed
Skin protection See Hand protection below	
 Hands/feet protection When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 20 according to Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive present. Polychioroprene. Nutrief close should be examined for wear and/or degradation constantly. 	be checked prior aking a final 40 minutes b EN 374, AS/NZS
Body protection See Other protection below	
Other protection P.V.C. apron. Barrier cream. Skin cleansing cream. 	
► Eye wash unit.	

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 *computer*generated selection: GECA Laundry Powder

Material	CPI
NATURAL RUBBER	A
NITRILE	А

* 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 unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

Respiratory protection

Type AB-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-piece 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	AB-AUS P2	-	AB-PAPR-AUS / Class 1 P2
up to 50 x ES	-	AB-AUS / Class 1 P2	-
up to 100 x ES	-	AB-2 P2	AB-PAPR-2 P2 ^

^ - 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 bromide, AX = Low boiling point organic compounds(below 65 degC)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	A blue powder		
Physical state	Solid	Relative density (Water = 1)	1
		Partition coefficient	
Odour	Lemongrass	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 Applicable
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 (1%)	10-12
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

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 products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled. If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.
	over a long period of time.
Ingestion	The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion. Inorganic polyphosphates are used extensively in domestic and industrial products. Experiments on rats showed kidney damage, growth retardation, and tetany due to low calcium. 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. Ingestion of anionic surfactants may produce diarrhoea, bloated stomach, and occasional vomiting.
Skin Contact	The material can produce chemical burns following direct contact with the skin. Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Anionic surfactants can cause skin redness and pain, as well as a rash. Cracking, scaling and bistering can occur. Contact with concentrated solutions of sodium carbonate may cause tissue damage - "soda ulcers ♥. 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.
Eye	The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating. If applied to the eyes, this material causes severe eye damage. Direct eye contact with some anionic surfactants in high concentration can cause severe damage to the cornea. Low concentrations can cause discomfort, excess blood flow, and corneal clouding and swelling. Recovery may take several days. 510sodacarb
Chronic	Studies show that inhaling this substance for over a long period (e.g. in an occupational setting) may increase the risk of cancer. Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population. Long term inhalation of sodium carbonate may result in nose damage and lung disease.

Laundry Powder Blue

Laundry Powder Blue	TOXICITY	IRRITA	IRRITATION		
	Not Available	Not Available			
	ΤΟΧΙΟΙΤΥ		IRRITATION		
			Eye (rabbit): 100 m	ng/24h moderate	
			-		
sodium carbonate	Inhalation (guinea pig) LC50: 0.8 mg/L/2h ^[2] Eye (rabbit): 100				
	Inhalation (mouse) LC50: 1.2 mg/L/2h ^[2] Eye (rabbit): 50 m Linka and the set of the set			-	
	Inhalation (rat) LC50: 2.3 mg/L/2he ^[2] Skin (rabbit): 500		Skin (raddit): 500 r	ng/24n mila	
	Oral (rat) LD50: 2800 mg/kg*d ^[2]				
	ΤΟΧΙΟΙΤΥ			IRRITATION	
sodium tripolyphosphate	Dermal (rabbit) LD50: >3160 mg/kg* ^[2]			Nil reported	
	Oral (rat) LD50: >2000 mg/kg ^[1]				
dodecylbenzenesulfonic	TOXICITY IRRITATION				
acid	Oral (rat) LD50: 650 mg/kg ^[2] Not		Not Available	t Available	
	TOXICITY IRRITATION			IRRITATION	
Icohols C12-15 ethoxylated	Dermal (rabbit) LD50: >2000 mg/kgt ^[2]			Eye: SEVERE *	
	Oral (rat) LD50: 1600 mg/kg** ^[2]		Skin: slight		
	ΤΟΧΙΟΙΤΥ	IRRITAT	TION		
sodium metasilicate, anhydrous	dermal (rat) LD50: >5000 mg/kg ^[1]	Skin (hu	man): 250 mg/24h Si	EVERE	
annydrous	Oral (rat) LD50: 600 mg/kg ^[1] Skin (rabbit): 250 mg/24h SEVERE		VERE		
	ΤΟΧΙΟΙΤΥ			IRRITATION	
sodium sulfate	Oral (rat) LD50: >2000 mg/kg ^[1]		Nil reported		
Legend:	Value obtained from Europe ECHA Registered Substance extracted from RTECS - Register of Toxic Effect of chemic		obtained from manuf	acturer's SDS. Unless otherwise spe	cified dat

GECA Laundry Powder	Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production. No significant acute toxicological data identified in literature search. for sodium carbonate has no or a low skin irritation potential but it is considered irritating to the eyes. Due to the alkaline properties an irritation of the respiratory tract is also possible. No valid animal data are available on repeated dose toxicity studies by oral, dermal, inhalation or by other routes for sodium carbonate. A repeated dose inhalation study, which was not reported in sufficient detail, revealed local effects on the lungs which could be expected based on the alkaline nature of the compound. Under normal handling and use conditions neither the concentration of sodium in the blood nor the pH of the blood will be increased and therefore sodium carbonate is not expected to be sy
	depending on the concentration exposed to. There is no evidence of harm to the unborn baby or tendency to cause cancer.
SODIUM CARBONATE	Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high

	concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production. for sodium carbonate: Sodium carbonate has no or a low skin irritation potential but it is considered irritating to the eyes. Due to the alkaline properties an irritation of the respiratory tract is also possible. No valid animal data are available on repeated dose toxicity studies by oral, dermal, inhalation or by other routes for sodium carbonate. A repeated dose inhalation study, which was not reported in sufficient detail, revealed local effects on the lungs which could be expected based on the alkaline nature of the compound. Under normal handling and use conditions neither the concentration of sodium in the blood nor the pH of the blood will be increased and therefore sodium carbonate is not expected to be systemically available in the body. It can be stated that the substance will neither reach the foetus nor reach male and female reproductive organs, which shows that there is no risk for developmental toxicity and no risk for toxicity to reproduction. This was confirmed by a developmental study with rabbits, rats and mice. An <i>in vitro</i> mutagenicity test with bacteria was negative and based on the structure of sodium carbonate no genotoxic effects are expected.
SODIUM TRIPOLYPHOSPHATE	scaling and thickening of the skin. Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production.
DODECYLBENZENESULFONIC ACID	The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus produce form. The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function. 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. Linear alkyl benzene sulfonates are derived from strong corrosive acids. Animal testing has shown they can cause skin reactions, eye irritation, sluggishness, passage of frequent watery stools, weakness and may lead to death. They may also react with surfaces of the mouth and intestines, depending on the
ALCOHOLS C12-15 ETHOXYLATED	Human beings have regular contact with alcohol ethoxylates through a variety of industrial and consumer products such as soaps, detergents, and other deaning products. Exposure to these chemicals can occur through ingestion, inhalation, or contact with the skin or eyes. Studies of acute toxicity show that volumes well above a reasonable intake level would have to occur to produce any toxic response. Moreover, no fatal case of poisoning with alcohol ethoxylates has ever been reported. Multiple studies investigating the acute toxicity of alcohol ethoxylates have shown that the use of these compounds is of low concern in terms of oral and dermal toxicity. Clinical animal studies indicate these chemicals may produce gastrointestinal irritation such as ulcerations of the stomach, pilo-erection, diarrhea, and lethargy. Similarly, slight to severe irritation of the skin or eye was generated when undiluted alcohol ethoxylates were applied to the skin and eyes of rabbits and rats. The chemical shows no indication of being a genotoxin, carcinogen, or mutagen (HERA 2007). Both laboratory and animal testing has shown that there is no evidence for alcohol ethoxylates (AEs) causing genetic damage, mutations or cancer. No adverse reproductive or developmental effects were observed. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. for Tergitol 25-L-9: Neodol 25-9 Neodol 25-7 *Shell Canada ** Huntsman (for Teric 12A9)
SODIUM METASILICATE, ANHYDROUS	The material may cause severe 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. Repeated exposures may produce severe ulceration. Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production.
SODIUM SULFATE	Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production. for sodium sulfate: Sulfate (and sodium) ions are important constituents of the mammalian body and of natural foodstuffs and there is a considerable daily turnover of both ions (several grams/day expressed as sodium sulfate). Near-complete absorption of dietary sulfates may occur at low concentration, depending on the counter-ion, but absorption capacity can be saturated at higher artificial dosages resulting in cathartic effects. Absorption through skin can probably be ignored since sodium sulfate is fully ionised in solution. One source suggests that very high levels of sulfate in urine may occur due to absorption from dust inhalation. At dietary levels, excretion is mainly in the urine. Sulfates are found in all body cells, with highest concentrations in connective

	Sulfates play a role in several important metabolic pathwa The acute toxicity (LD50) of sodium sulfate has not been Equivocal Tumorigen by RTECS criteria. Reproductive e	reliably established but is probably fa	
Acute Toxicity	0	Carcinogenicity	0
Skin Irritation/Corrosion	*	Reproductivity	\otimes
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	\otimes
Respiratory or Skin sensitisation	0	STOT - Repeated Exposure	0
Mutagenicity	0	Aspiration Hazard	0
			- Data available but does not fill the criteria for classification

S – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
sodium carbonate	EC50	48	Crustacea	=176mg/L	1
sodium carbonate	EC50	96	Algae or other aquatic plants	242mg/L	4
sodium carbonate	NOEC	16	Crustacea	424mg/L	4
sodium carbonate	LC50	96	Fish	300mg/L	2
sodium carbonate	EC50	96	Crustacea	67mg/L	2
sodium tripolyphosphate	EC50	48	Crustacea	>70.7- <101.3mg/L	2
sodium tripolyphosphate	EC50	96	Algae or other aquatic plants	69.2mg/L	2
dodecylbenzenesulfonic acid	EC50	48	Crustacea	=5.12mg/L	1
dodecylbenzenesulfonic acid	EC50	384	Crustacea	1.309mg/L	3
dodecylbenzenesulfonic acid	EC50	96	Algae or other aquatic plants	5.549mg/L	3
dodecylbenzenesulfonic acid	LC50	96	Fish	5.118mg/L	3
alcohols C12-15 ethoxylated	LC50	96	Fish	0.59mg/L	2
alcohols C12-15 ethoxylated	EC50	48	Crustacea	0.13mg/L	2
alcohols C12-15 ethoxylated	EC50	48	Crustacea	0.14mg/L	2
alcohols C12-15 ethoxylated	NOEC	48	Crustacea	0.056mg/L	2
alcohols C12-15 ethoxylated	EC50	72	Algae or other aquatic plants	0.3mg/L	2
sodium metasilicate, anhydrous	EC50	96	Crustacea	160mg/L	1
sodium metasilicate, anhydrous	LC50	96	Fish	180mg/L	1
sodium metasilicate, anhydrous	EC50	48	Crustacea	1700mg/L	2
sodium metasilicate, anhydrous	EC50	72	Algae or other aquatic plants	207mg/L	2
sodium sulfate	EC50	96	Algae or other aquatic plants	105.72278mg/L	3
sodium sulfate	NOEC	168	Fish	<220mg/L	4
sodium sulfate	EC0	360	Algae or other aquatic plants	4mg/L	1
sodium sulfate	LC50	96	Fish	ca.56mg/L	2
sodium sulfate	EC50	48	Crustacea	2564mg/L	2

Legend:

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 -Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) -Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

On the basis of available evidence concerning either toxicity, persistence, potential to accumulate and or observed environmental fate and behaviour, the material may present a danger, immediate or long-term and /or delayed, to the structure and/ or functioning of natural ecosystems.

Toxic to aquatic organisms.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites. for sodium sulfate:

Environmental Fate: In water sodium sulfate completely dissociates into sodium and sulfate ions, which cannot hydrolyse. In anaerobic environments sulfate is biologically reduced to (hydrogen) sulfide by sulfate reducing bacteria, or incorporated into living organisms as a source of sulfur, and thereby included in the sulfur cycle. Sodium sulfate will completely dissolve, ionise and distribute across the entire planetary "aquasphere". Some sulfates may eventually be deposited, the majority of sulfates participate in the sulfur cycle in which natural and industrial sodium sulfate are not distinguishable.

The BCF of sodium sulfate is very low and therefore significant bioconcentration is not expected. Sodium and sulfate ions are essential to all living organisms and their intracellular and extracellular concentrations are actively regulated. However some plants (e.g. corn and Kochia Scoparia), are capable of accumulating sulfate to concentrations that are potentially toxic to ruminants.

Ecotoxicity: Algae were shown to be the most sensitive to sodium sulfate; EC50 120 h = 1,900 mg/l. For sodium carbonate

Environmental Fate:

As sodium carbonate has the capacity to drastically increase the pH of an ecosystm, the extent of its effect on organisms depends on the buffer capacity of the aquatic or terrestrial ecosystem, and the pH tolerance levels of the organisms living there. While the use of sodium carbonate could potentially result in its release into aquatic systems and cause an increase in pH, these levels are usually monitored in effluents, and can easily be corrected. If corrective measures are taken to control the pH of waste water no significant increase in the receiving water or adverse environmental effects is not expected with the use of sodium carbonate. The sodium ion will remain in solution and not adsorb to particulate matter. In water the carbonate ions will re-equilibrate until equilibrium is established, and will finally be incorporated into the inorganic and organic carbon cycle. Ecotoxicity:

Aquatic invertebrate EC50 (48 h): Cladoceran ceriodaphnia cf Dubia: 200-227 mg/l (immobilisation).

The variation in acute toxicity for aquatic organisms may be explained by the variation in buffer capacity of the test medium. In general, mortality of the test organisms was found at concentrations higher than 100 mg/l, but for Amphipoda, salmon and trout, lethal effects were observed at 67-80 mg/l.

For Linear Alkylbenzene Sulfonic Acids and their Salts (LABS): Log Kow: ~2.

Environmental Fate: The environmental fate of LABS and alkylbenzene sulfonate, (LAS), are expected to be similar. LABS are liquids and LAS is a solid at room temperature. Most of these chemicals will partition to the soil and water \blacklozenge very little move to the air or sediment. Atmospheric Fate: Breakdown of LABS/LAS by light is expected to be an important fate process. The substances are expected to be broken down by hydroxyl radicals, with a half-life of 7-8.6 hours, (LABS), and 95% breakdown of LAS, in 20 minutes, at 25 C.

Terrestrial Fate: Substantial breakdown of LABS, LAS, and the C10-16 derivatives of LABS by oxygen using microbes is expected to occur. LAS will not breakdown under low oxygen conditions. **DO NOT** discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
sodium carbonate	LOW	LOW
dodecylbenzenesulfonic acid	HIGH	HIGH
sodium sulfate	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
sodium carbonate	LOW (LogKOW = -0.4605)
dodecylbenzenesulfonic acid	LOW (BCF = 140)
sodium sulfate	LOW (LogKOW = -2.2002)

Mobility in soil

Ingredient	Mobility
sodium carbonate	HIGH (KOC = 1)
dodecylbenzenesulfonic acid	LOW (KOC = 16830)
sodium sulfate	LOW (KOC = 6.124)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

 Product / Packaging

 b DO NOT allow wash water from cleaning or process equipment to enter drains.
 I tray be necessary to collect all wash water for treatment before disposal.
 I n 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.

SECTION 14 TRANSPORT INFORMATION

Labels Required

	· · · · · · · · · · · · · · · · · · ·
Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (ADG): 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

Transport in bulk according to Annex II of MARPOL and the IBC code Not Applicable

SECTION 15 REGULATORY INFORMATION

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

SODIUM CARBONATE(497-19-8) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Substances Information System - Consolidated Lists

Australia Inventory of Chemical Substances (AICS)

SODIUM TRIPOLYPHOSPHATE(7758-29-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

Australia Hazardous Substances Information System - Consolidated Lists

Australia Inventory of Chemical Substances (AICS)

Australia Inventory of Chemical Substances (AICS)

ALCOHOLS C12-15 ETHOXYLATED(68131-39-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Substances Information System - Consolidated Lists

SODIUM METASILICATE, ANHYDROUS(6834-92-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Substances Information System - Consolidated Lists

Australia Inventory of Chemical Substances (AICS)

SODIUM SULFATE(7757-82-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

National Inventory	Status
Australia - AICS	Υ
Canada - DSL	Υ
Canada - NDSL	N (sodium tripolyphosphate; dodecylbenzenesulfonic acid; sodium sulfate; alcohols C12-15 ethoxylated; sodium metasilicate, anhydrous; sodium carbonate)
China - IECSC	Υ
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	N (alcohols C12-15 ethoxylated)
Korea - KECI	Υ
New Zealand - NZIoC	Υ
Philippines - PICCS	Υ
USA - TSCA	Υ
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Other information

Ingredients with multiple cas numbers

Name	CAS No
sodium carbonate	497-19-8, 7542-12-3
sodium tripolyphosphate	15091-98-2, 7758-29-4

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 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.

Definitions and abbreviations

PC – TWA: Permissible Concentration-Time Weighted Average PC – STEL: Permissible Concentration-Short Term Exposure Limit IARC: International Agency for Research on Cancer ACGIH: American Conference of Governmental Industrial Hygienists STEL: Short Term Exposure Limit TEEL: Temporary Emergency Exposure Limit, IDLH: Immediately Dangerous to Life or Health Concentrations OSF: Odour Safety Factor NOAEL: No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value LODE: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index

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