



Zep Manufacturing Mykal Hand Cleaning Wipes

Zep Manufacturing

Chemwatch: 2500-159

Version No: 2.1

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

Chemwatch Hazard Alert Code: 1

Issue Date: 01/06/2023

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L.GHS.AUS.EN

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

Product Identifier

Product name	Zep Manufacturing Mykal Hand Cleaning Wipes
Chemical Name	Not Applicable
Synonyms	22650001
Chemical formula	Not Applicable
Other means of identification	UFI:KM4H-F8WH-S326-K6FY

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

Relevant identified uses	Hand cleaning agent. NOTES: Hazard statements relates to the solution used to impregnate the wipes.
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Details of the manufacturer or supplier of the safety data sheet

Registered company name	Zep Manufacturing
Address	PO Box 12, Tanhouse Lane Widnes Cheshire WA8 0RD United Kingdom
Telephone	+44 151 422 1000
Fax	+44 151 422 1011
Website	http://www.zep.co.uk/
Email	info@zep.co.uk

Emergency telephone number

Association / Organisation	CHEMWATCH EMERGENCY RESPONSE (24/7)
Emergency telephone numbers	+61 1800 951 288
Other emergency telephone numbers	+61 3 9573 3188

Once connected and if the message is not in your preferred language then please dial 01

SECTION 2 Hazards identification

Classification of the substance or mixture

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

Chemwatch Hazard Ratings

	Min	Max
Flammability	1	1
Toxicity	0	0
Body Contact	0	0
Reactivity	1	1
Chronic	0	0

0 = Minimum
1 = Low
2 = Moderate
3 = High
4 = Extreme

Poisons Schedule	Not Applicable
Classification [1]	Not Applicable

Label elements

Hazard pictogram(s)	Not Applicable
Signal word	Not Applicable

Zep Manufacturing Mykal Hand Cleaning Wipes

Hazard statement(s)

Not Applicable

Precautionary statement(s) Prevention

Not Applicable

Precautionary statement(s) Response

Not Applicable

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
Not Available		wipes containing
91490-94-7	NotSpec	<u>diisodecyldimethylammonium chloride</u>
7647-14-5	NotSpec	<u>sodium chloride</u>
68201-46-7	NotSpec	<u>glyceryl cocoate, ethoxylated</u>
627-93-0	NotSpec	<u>dimethyl adipate</u>
61789-40-0	NotSpec	<u>cocamidopropylbetaine</u>
122-99-6	NotSpec	<u>ethylene glycol phenyl ether</u>
1119-40-0	NotSpec	<u>dimethyl glutarate</u>
106-65-0	NotSpec	<u>dimethyl succinate</u>
Not Available	NotSpec	parfum, proprietary
110615-47-9	NotSpec	<u>(C10-16)alkyl D-glycopyranoside</u>
67-63-0	NotSpec	<u>isopropanol</u>
55406-53-6	NotSpec	<u>3-iodo-2-propynyl butyl carbamate</u>
7732-18-5	NotSpec	<u>water</u>
Legend:		1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L; * EU IOELVs available

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.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Firefighting measures

Extinguishing media

- ▶ 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
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Advice for firefighters

Fire Fighting	▶ Alert Fire Brigade and tell them location and nature of hazard.
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Continued...

	▶ 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.
Fire/Explosion Hazard	▶ Solid which exhibits difficult combustion or is difficult to ignite. ▶ 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; once initiated larger particles up to 1400 microns diameter will contribute to the propagation of an explosion. ▶ A dust explosion may release large quantities of gaseous products; this in turn creates a subsequent pressure rise of explosive force capable of damaging plant and buildings and injuring people. Combustion products include: carbon monoxide (CO) carbon dioxide (CO2) hydrogen iodide nitrogen oxides (NOx) other pyrolysis products typical of burning organic material.
HAZCHEM	Not Applicable

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	▶ Clean up all spills immediately. ▶ Avoid contact with skin and eyes. ▶ Wear impervious gloves and safety glasses. ▶ Use dry clean up procedures and avoid generating dust.
Major Spills	▶ Clear area of personnel and move upwind. ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ Control personal contact with the substance, by using protective equipment and dust respirator. ▶ Prevent spillage from entering drains, sewers or water courses.

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

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	▶ Limit all unnecessary personal contact. ▶ Wear protective clothing when risk of exposure occurs. ▶ Use in a well-ventilated area. ▶ Avoid contact with incompatible materials. ▶ 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.
Other information	Store in the dark. ▶ 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.

Conditions for safe storage, including any incompatibilities

Suitable container	▶ Lined metal can, lined metal pail/ can. ▶ Plastic pail. ▶ Polyliner drum. ▶ Packing as recommended by manufacturer.
Storage incompatibility	Avoid contamination of water, foodstuffs, feed or seed. ▶ Avoid reaction with oxidising agents

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	isopropanol	Isopropyl alcohol	400 ppm / 983 mg/m3	1230 mg/m3 / 500 ppm	Not Available	Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
sodium chloride	0.5 ppm	2 ppm	20 ppm

Ingredient	TEEL-1	TEEL-2	TEEL-3
ethylene glycol phenyl ether	1.5 ppm	16 ppm	97 ppm
dimethyl succinate	2.5 ppm	28 ppm	170 ppm
isopropanol	400 ppm	2000* ppm	12000** ppm
3-iodo-2-propynyl butyl carbamate	3.3 mg/m3	36 mg/m3	220 mg/m3

Ingredient	Original IDLH	Revised IDLH
diisodecyldimethylammonium chloride	Not Available	Not Available
sodium chloride	Not Available	Not Available
glyceryl cocoate, ethoxylated	Not Available	Not Available
dimethyl adipate	Not Available	Not Available
cocamidopropylbetaine	Not Available	Not Available
ethylene glycol phenyl ether	Not Available	Not Available
dimethyl glutarate	Not Available	Not Available
dimethyl succinate	Not Available	Not Available
(C10-16)alkyl D-glycopyranoside	Not Available	Not Available
isopropanol	2,000 ppm	Not Available
3-iodo-2-propynyl butyl carbamate	Not Available	Not Available
water	Not Available	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
diisodecyldimethylammonium chloride	E	≤ 0.01 mg/m³
sodium chloride	E	≤ 0.01 mg/m³
glyceryl cocoate, ethoxylated	E	≤ 0.01 mg/m³
dimethyl adipate	E	≤ 0.1 ppm
cocamidopropylbetaine	E	≤ 0.1 ppm
ethylene glycol phenyl ether	E	≤ 0.1 ppm
dimethyl succinate	E	≤ 0.1 ppm
(C10-16)alkyl D-glycopyranoside	E	≤ 0.1 ppm
3-iodo-2-propynyl butyl carbamate	E	≤ 0.01 mg/m³

Notes: Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

MATERIAL DATA

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.
Individual protection measures, such as personal protective equipment	
Eye and face protection	▶ Safety glasses with side shields ▶ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] ▶ 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.
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. Personal hygiene is a key element of effective hand care. Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present. ▶ polychloroprene. ▶ nitrile rubber. ▶ butyl rubber.

Body protection	See Other protection below
Other protection	No special equipment needed when handling small quantities. OTHERWISE: - Overalls. - Barrier cream. - Eyewash 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:
Zep Manufacturing Mykal Hand Cleaning Wipes

Material	CPI
BUTYL	C
NAT+NEOPR+NITRILE	C
NATURAL RUBBER	C
NATURAL+NEOPRENE	C
NEOPRENE	C
NITRILE	C
NITRILE+PVC	C
PE/EVAL/PE	C
PVA	C
PVC	C
VITON	C

* 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 AK-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	Air-line*	AK-2 P2	AK-PAPR-2 P2 ^
up to 20 x ES	-	AK-3 P2	-
20+ x ES	-	Air-line**	-

* - Continuous-flow; ** - Continuous-flow or positive pressure demand
^ - 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)

· Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.
· The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).
· Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.
· Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
· Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)
· Use approved positive flow mask if significant quantities of dust becomes airborne.
· Try to avoid creating dust conditions.

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear solid with fruit-like odor; insoluble in water.		
Physical state	Manufactured	Relative density (Water = 1)	0.995
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Applicable	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	100	Molecular weight (g/mol)	Not Applicable
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)	2.3 @20C	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Applicable
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 Stability and reactivity

Zep Manufacturing Mykal Hand Cleaning Wipes

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 odour of isopropanol may give some warning of exposure, but odour fatigue may occur. Inhalation of isopropanol may produce irritation of the nose and throat with sneezing, sore throat and runny nose. The effects in animals subject to a single exposure, by inhalation, included inactivity or anaesthesia and histopathological changes in the nasal canal and auditory canal.
Ingestion	Swallowing 10 millilitres of isopropanol may cause serious injury; 100 millilitres may be fatal if not properly treated. The adult single lethal dose is approximately 250 millilitres. Isopropanol is twice as poisonous as ethanol, and the effects caused are similar, except that isopropanol does not cause an initial feeling of well-being. Swallowing may cause nausea, vomiting and diarrhea; vomiting and stomach inflammation is more prominent with isopropanol than with ethanol.
Skin Contact	511ipa
Eye	Isopropanol vapour may cause mild eye irritation at 400 ppm. Splashes may cause severe eye irritation, possible corneal burns and eye damage. Eye contact may cause tearing or blurring of vision.
Chronic	Long-term exposure to the product is not thought to produce chronic effects adverse to health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course. Long term, or repeated exposure of isopropanol may cause inco-ordination and tiredness. Repeated inhalation exposure to isopropanol may produce sleepiness, inco-ordination and liver degeneration. Animal data show developmental effects only at exposure levels that produce toxic effects in adult animals. Isopropanol does not cause genetic damage.

Zep Manufacturing Mykal Hand Cleaning Wipes	TOXICITY	IRRITATION
	Not Available	Not Available
diisodecyltrimethylammonium chloride	TOXICITY	IRRITATION
	Oral (Rat) LD50: 84 mg/kg ^[2]	Not Available
sodium chloride	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >10000 mg/kg ^[1]	Eye (rabbit): 10 mg - moderate
	Inhalation(Rat) LC50: >10.5 mg/l4h ^[1]	Eye (rabbit):100 mg/24h - moderate
	Oral (Rat) LD50: 3000 mg/kg ^[2]	Skin (rabbit): 500 mg/24h - mild
glyceryl cocoate, ethoxylated	TOXICITY	IRRITATION
	Oral (Rat) LD50: >16000 mg/kg ^[2]	Not Available
dimethyl adipate	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye (rabbit): Irritant
	Inhalation(Rat) LC50: 2.675 mg/l4h ^[2]	Skin (human): SEVERE
	Oral (Rat) LD50: >2000 mg/kg ^[1]	
cocamidopropylbetaine	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye: adverse effect observed (irritating) ^[1]
	Oral (Rat) LD50: 2700 mg/kg ^[2]	Eye: primary irritant *
		Skin: adverse effect observed (irritating) ^[1]
ethylene glycol phenyl ether	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye (rabbit): 250 ug/24h - SEVERE
	Oral (Rat) LD50: 1260 mg/kg ^[2]	Eye (rabbit): 6 mg - moderate
		Skin (rabbit): 500 mg/24h - mild
dimethyl glutarate	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye (rabbit): Irritant
	Inhalation(Rat) LC50: >11 mg/l4h ^[1]	Skin (human): Irritant [Manuf. DU]
	Oral (Rat) LD50: >2000 mg/kg ^[1]	

Zep Manufacturing Mykal Hand Cleaning Wipes

dimethyl succinate	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg ^[1]	Not Available
	Oral (Rat) LD50: >5000 mg/kg ^[2]	
(C10-16)alkyl D-glycopyranoside	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >2000 mg/kg ^[1]	Eye (rabbit): irritant OECD 405
	Oral (Rat) LD50: >2000 mg/kg ^[1]	Skin (rabbit): non-irritant OECD 404
isopropanol	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 12800 mg/kg ^[2]	Eye (rabbit): 10 mg - moderate
	Inhalation(Mouse) LC50: 53 mg/L4h ^[2]	Eye (rabbit): 100 mg - SEVERE
	Oral (Mouse) LD50: 3600 mg/kg ^[2]	Eye (rabbit): 100mg/24hr-moderate
		Skin (rabbit): 500 mg - mild
3-iodo-2-propynyl butyl carbamate	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >2000 mg/kg ^[1]	Eye: adverse effect observed (irreversible damage) ^[1]
	Inhalation(Rat) LC50: 0.63 mg/L4h ^[1]	Eye: Irritating * [Yoshitomi and Troy Chem.WPL]
	Oral (Rat) LD50: 1056 mg/kg ^[1]	Skin: no adverse effect observed (not irritating) ^[1]
		Skin: Slight irritant
water	TOXICITY	IRRITATION
	Oral (Rat) LD50: >90000 mg/kg ^[2]	Not Available
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

DIISODECYLDIMETHYLAMMONIUM CHLORIDE	for acid mists, aerosols, vapours Data from assays for genotoxic activity in vitro suggest that eukaryotic cells are susceptible to genetic damage when the pH falls to about 6.5. Cells from the respiratory tract have not been examined in this respect. Mucous secretion may protect the cells of the airways from direct exposure to inhaled acidic mists, just as mucous plays an important role in protecting the gastric epithelium from its auto-secreted hydrochloric acid. In considering whether pH itself induces genotoxic events in vivo in the respiratory system, comparison should be made with the human stomach, in which gastric juice may be at pH 1-2 under fasting or nocturnal conditions, and with the human urinary bladder, in which the pH of urine can range from <5 to > 7 and normally averages 6.2. No specific data describing the health effects of cationic dialkyldimethylammonium (DADMA - dimonium) salts are readily available. However, many of the properties described for alkyltrimethylammonium (ATMA) salts also apply to DADMA salts, although these are generally less irritating than the corresponding ATMA salts For alkyltrimethylammonium chloride (ATMAC) Most undiluted cationic surfactants satisfy the criteria for classification as Harmful (Xn) with R22 and as Irritant (Xi) for skin and eyes with R38 and R41. In addition, certain surfactants will satisfy the criteria for classification as Corrosive with R34 in addition to the acute toxicity. According to Centre Europeen des Agents de Surface et de leurs Intermediaires Organiques (CESIO), C8-18 alkyltrimethylammonium chloride (ATMAC) (i.e., lauryl, coco, soya, and tallow) are classified as Corrosive (C) with the risk phrases R22 (Harmful if swallowed) and R34 (Causes burns). C16 ATMAC is classified as Harmful (Xn) with the risk phrases R22 (Harmful if swallowed), R38 (Irritating to skin), and R41 (Risk of serious damage to eyes). C20-22 ATMAC are classified as Irritant (Xi) with R36/38 (Irritating to eyes and skin). Toxicokinetics and Acute Toxicity: The few available absorption studies conducted with cationic surfactants indicate that absorption occurs in small amounts through the skin.
GLYCERYL COCOATE, ETHOXYLATED	Human beings have regular contact with alcohol ethoxylates through a variety of industrial and consumer products such as soaps, detergents, and other cleaning 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. Alcohol ethoxylates are according to CESIO (2000) classified as Irritant or Harmful depending on the number of EO-units: EO < 5 gives Irritant (Xi) with R38 (Irritating to skin) and R41 (Risk of serious damage to eyes) EO > 5-15 gives Harmful (Xn) with R22 (Harmful if swallowed) - R38/41 EO > 15-20 gives Harmful (Xn) with R22-41 >20 EO is not classified (CESIO 2000) Oxo-AE, C13 EO10 and C13 EO15, are Irritating (Xi) with R36/38 (Irritating to eyes and skin) . AE are not included in Annex 1 of the list of dangerous substances of the Council Directive 67/548/EEC In general, alcohol ethoxylates (AE) are readily absorbed through the skin of guinea pigs and rats and through the gastrointestinal mucosa of rats. AE are quickly eliminated from the body through the urine, faeces, and expired air (CO₂). Orally dosed AE was absorbed rapidly and extensively in rats, and more than 75% of the dose was absorbed. When applied to the skin of humans, the doses were absorbed slowly and incompletely (50% absorbed in 72 hours). Half of the absorbed surfactant was excreted promptly in the urine and smaller amounts of AE appeared in the faeces and expired air (CO₂) .
DIMETHYL ADIPATE	The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may produce severe skin irritation after prolonged or repeated exposure, and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) thickening of the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis. Prolonged contact is unlikely, given the severity of response, but repeated exposures may produce severe ulceration.
COCAMIDOPROPYLBETAINE	* [Van Waters and Rogers] ** [Canada Colors and Chemicals Ltd.] Toxicokinetics, metabolism and distribution. Absorption of the chemical across dermal and gastrointestinal membranes is possible based on the relatively low molecular weight of the chemical (500 Da) and given that it is a surfactant (EC, 2003). Acute toxicity. Acute oral toxicity studies in rats and mice indicated that the LD50 values of the chemical (at 30-35.61% concentration) ranged from 1800 mg/kg bw (male rats) up to 5000 mg/kg bw, with mortalities noted in most studies (CIR, 2010). Of note is an acute oral toxicity study conducted in Sprague-Dawley rats (5/sex) at a single dose of 1800 mg/kg bw (formulation containing 35.61% of the chemical), where no males but all five females died. Overall, the data suggests that mortality occurs following oral administration of the chemical and that it may be an acute oral toxicant. Therefore, based on these data the chemical may be harmful if

Zep Manufacturing Mykal Hand Cleaning Wipes

swallowed. An acute dermal toxicity study in rats was conducted using 2000 mg/kg bw of a 31% formulation of the chemical (CIR, 2010). Irritation was observed, but there were no clinical signs of systemic toxicity or mortalities. The lack of effects in this study suggests that the chemical is likely to be of low acute dermal toxicity. Irritation. The chemical has a quaternary ammonium functional group, which is a structural alert for corrosion. Numerous skin irritation studies, conducted with formulations containing 7.5-30% of the chemical, indicated that the chemical has irritant properties. The studies were, in-general, conducted under occlusive conditions, with exposure times of up to 24 hours (7.5-10%). Based on the information available, the chemical is likely to be a skin irritant. Eye irritation studies with the chemical showed that corrosive and necrotic effects occurred at 30% whereas less severe effects were observed at lower concentrations of 2.3-10%. The chemical is classified with the risk phrase R36: Irritating to eyes, however, based on studies conducted on the chemical it may be a severe eye irritant. Sensitisation. The chemical has a quaternary ammonium functional group, which is a structural alert for sensitisation (Conflicting results have been obtained with the chemical in animal studies. Positive results were reported in an LLNA study (an EC3 value was not reported). In addition, positive results were obtained in two guinea pig maximisation studies conducted by a single laboratory, the first at 3% induction and 3% challenge, and the second at 0.15% induction and 0.015% challenge. However, there was no sensitisation in a guinea pig maximisation test when the chemical was tested at 6% induction and 1% challenge. No evidence of sensitisation was reported in a HRIPT on a formulation containing the chemical at 0.6% concentration (a 10% dilution of a ~6% formulation) with 110 volunteers. In HRIPT studies on formulations containing the chemical, no evidence of sensitisation was reported at concentrations of 1.87% (88 subjects), 0.93% (93 subjects), 0.3% (100 subjects), 1.5-3.0% (141 subjects), 6.0% (210 subjects), 0.018% (27 subjects). However, positive results were observed in provocative studies conducted on formulations containing the chemical (at 0.3-1% concentration), conducted in subjects diagnosed with various forms of contact dermatitis, suggesting that the chemical may cause reactions in sensitive individuals. In one study authors note that sensitisation effects of the chemical (and related compounds) are most likely due to the impurities, including DMAPA and amidopropyl dimethylamines, however, they do not exclude the possibility of the causing the sensitisation. The potential for skin sensitisation, due to the presence of the above impurities in the chemical, will be limited by their reported low concentration. In summary, a definitive conclusion cannot be made on the skin sensitisation potential of the chemical. The available information suggests that skin sensitisation is possible. Although there are some inconsistencies in the results reported for studies conducted on the chemical, the scientific data points towards the positive findings being caused by impurities, in particular DMAPA and amidopropyl dimethylamines, which are present in the chemical at low concentrations. Repeated Dose Toxicity. In a 28-day repeated dose oral toxicity study, rats were administered a 30.6% solution of the chemical at 0, 100, 500 or 1000 mg/kg bw/day. Inflammation of the non-glandular stomach was noted in animals of the high-dose group, although this effect was attributed to the irritant properties of the test material. Mortality was also observed in this study at all treatment levels but there was no dose-response relationship. In another 28-day repeated dose oral toxicity study, rats were administered a solution containing the chemical (concentration not stated) at 0, 250, 500 or 1000 mg/kg bw/day. The NOEL was reported as 500 mg/kg bw/day, which appears to be based on non-systemic irritant effects on the non-glandular stomach. No mortalities were observed. In a 90-day repeated dose oral toxicity study, rats were administered a solution containing the chemical (concentration not stated) at 0, 250, 500 or 1000 mg/kg bw/day. There were no mortalities and the noted effects are isolated to the stomach region and appear to be irritant in nature. The NOEL established by the study authors was 250 mg/kg bw/day, based on these effects. Mutagenicity. The chemical was not mutagenic in numerous bacterial reverse mutation assays. Negative results were also obtained for the chemical in a mouse lymphoma test and a micronucleus test in mice. Carcinogenicity. No signs of carcinogenicity were noted in a 20 month dermal study in mice (3 applications/week) for a hair dye formulation containing the chemical at a concentration of 0.09%. The formation of nitrosamines is possible. Secondary amides (and the identified impurities) may serve as substrates for N-nitrosation, therefore formulation with N-nitrosating agents should be avoided. Possible cross-reactions to several fatty acid amidopropyl dimethylamines were observed in patients that were reported to have allergic contact dermatitis to a baby lotion that contained 0.3% oleamidopropyl dimethylamine. Stearamidopropyl dimethylamine at 2% in hair conditioners was not a contact sensitizer when tested neat or diluted to 30%. However, irritation reactions were observed. A 10-year retrospective study found that out of 46 patients with confirmed allergic eyelid dermatitis, 10.9% had relevant reactions to oleamidopropyl dimethylamine and 4.3% had relevant reactions to cocamidopropyl dimethylamine. Several cases of allergic contact dermatitis were reported in patients from the Netherlands that had used a particular type of body lotion that contained oleamidopropyl dimethylamine. In 12 patients tested with their personal cosmetics, containing the fatty acid amidopropyl dimethylamine cocamidopropyl betaine (CAPB), 9 had positive reactions to at least one dilution and 5 had irritant reactions. All except 3 patients, who were not tested, had 2 or 3+ reaction to the 3,3-dimethylaminopropylamine (DMAPA), the reactant used in producing fatty acid amidopropyl dimethylamines at concentrations as low as 0.05%. The presence of DMAPA was investigated via thin-layer chromatography in the personal cosmetics of 4 of the patients that had positive reactions. Most undiluted cationic surfactants satisfy the criteria for classification as Harmful (Xn) with R22 and as Irritant (Xi) for skin and eyes with R38 and R41. For betaines: Several sources revealing data on skin irritation, skin sensitisation and dermal absorption in humans are available for CAS 683-10-3, the C12-alkyldimethyl betaine, which is the most frequently occurring betaine because it is one of the components of most of the substances of the alkyldimethyl betaine group, among those also Betaines, C12-14 (even numbered)-alkyldimethyl. Therefore, read-across of exposure-related observations in humans from CAS 683-10-3 is justified. Data from several human closed patch tests demonstrate skin irritation in humans ranging from mild to strong under occlusive conditions even with concentrations as low as 1%. In contrast, exposure to 0.1% under open conditions did not induce any positive skin reactions.

ETHYLENE GLYCOL PHENYL ETHER

Bacterial cell mutagen

The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The aryl alkyl alcohol (AAA) fragrance ingredients are a diverse group of chemical structures with similar metabolic and toxicity profiles. The AAA fragrances demonstrate low acute and subchronic dermal and oral toxicity. At concentrations likely to be encountered by consumers, AAA fragrance ingredients are non-irritating to the skin. The potential for eye irritation is minimal. With the exception of benzyl alcohol and to a lesser extent phenethyl and 2-phenoxyethyl AAA alcohols, human sensitization studies, diagnostic patch tests and human induction studies, indicate that AAA fragrance ingredients generally have no or low sensitization potential. Available data indicate that the potential for photosensitization is low. NOAELs for maternal and developmental toxicity are far in excess of current human exposure levels. No carcinogenicity in rats or mice was observed in 2-year chronic testing of benzyl alcohol or a-methylbenzyl alcohol; the latter did induce species and gender-specific renal adenomas in male rats at the high dose. There was no little genotoxicity, mutagenicity, or clastogenicity in the mutagenicity in vitro bacterial assays, and in vitro mammalian cell assays. All in vivo micronucleus assays were negative. It is concluded that these materials would not present a safety concern at current levels of use as fragrance ingredients. The Research Institute for Fragrance Materials (RIFM) Expert Panel

(C10-16)ALKYL D-GLYCOPYRANOSIDE

Acute inhalation hazard (rat) - no mortalities after 7 hour exposure in a highly enriched and/ or saturated atmosphere at 200 deg. C * *Redox MSDS (LD50 calculated) Alkyl glycosides (syn: alkyl polyglycosides, alkyl polyglycosides, APGs) are considered non-irritating to skin, but irritating to eyes at very high concentrations. A general classification of a 65% C8 alkyl glycoside solution according to the Substance Directive 67/548/EEC is Irritating (Xi) with the risk phrase R41 (Risk of serious damage to the eyes) or R36 (Irritating to the eyes) (Akzo Nobel 1998). **Acute toxicity:** In single dose dermal studies with caprylyl/capryl glucoside and C10-16 alkyl glucoside (both 50% a.i., n:1.6) in rabbits, the LD50 was greater than the 2000 mg/kg dose administered. In oral studies with the same test substances, none of the mice dosed with 2000 mg/kg caprylyl glucoside and none of the rats dosed with 5000 mg/kg C10-16 alkyl glucoside died during the study.

Zep Manufacturing Mykal Hand Cleaning Wipes

	Ocular: In system studies for ocular irritation, the ocular irritation potential of decyl, lauryl, C10-16 alkyl, and coco-glucosides was non to slightly irritating and of caprylyl/ capryl glucoside was highly irritating. In a HET-CAM study with APG of varying proportions of alkyl chain length, the ocular irritation potential increased with the increased proportion of shorter-chain APGs.
ISOPROPANOL	For isopropanol (IPA): Acute toxicity: Isopropanol has a low order of acute toxicity. It is irritating to the eyes, but not to the skin. Very high vapor concentrations are irritating to the eyes, nose, and throat, and prolonged exposure may produce central nervous system depression and narcosis. Human volunteers reported that exposure to 400 ppm isopropanol vapors for 3 to 5 min. The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.
3-iodo-2-propynyl butyl carbamate	for carbamates: Carbamates are effective insecticides by virtue of their ability to inhibit acetylcholinesterase (AChE) (EC 3.1.1.7) in the nervous system. They can also inhibit other esterases. The carbamylation of the enzyme is unstable, and the regeneration of AChE is relatively rapid compared with that from a phosphorylated enzyme. Thus, carbamate pesticides are less dangerous with regard to human exposure than organophosphorus pesticides. for 3-iodo-2-propynyl butyl carbamate (IPBC): Acute toxicity: Acceptable acute toxicity studies with IPBC indicate low toxicity except eye irritation. In a primary eye irritation study in rabbit. IPBC technical was severely irritating to the eyes of white rabbits, with corneal opacity and corneal vascularization reported in unwashed eyes by day 21 post-treatment. The technical grade of IPBC was slightly irritating to the skin of white rabbits.
DIISODECYLDIMETHYLAMMONIUM CHLORIDE & WATER	No significant acute toxicological data identified in literature search.
DIISODECYLDIMETHYLAMMONIUM CHLORIDE & SODIUM CHLORIDE & ISOPROPANOL	Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia.
SODIUM CHLORIDE & COCAMIDOPROPYLBETAINE	The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
SODIUM CHLORIDE & ETHYLENE GLYCOL PHENYL ETHER & ISOPROPANOL	The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.
DIMETHYL ADIPATE & DIMETHYL GLUTARATE & DIMETHYL SUCCINATE	The family of dibasic (methyl) esters (DBEs) comprise dimethyl succinate (DMS, CAS No. 106-65-0), dimethyl glutarate (DMG, CAS No. 1119-40-0), and dimethyl adipate (DMA, CAS No. 627-93-0), and their mixture DBE (CAS No. 95481-62-2). A crude dibasic ester mixture is distilled to produce DMS, DMG, and DMA and three other fractions that are mixtures of these esters generally composed of 10-25, 55-65, and 15-25% DMA, DMG, and DMS, respectively. The three discrete compounds are all short four-to six-carbon straight-chain dicarboxylic acid dimethyl esters differing incrementally by one carbon atom. The four members of the category produce similar levels of acute and repeated-dose toxicity in experimental animals DBEs have very low acute oral toxicities with LD50 s in rats generally > 5,000 mg/kg (with two exceptions reported as >500 and <5,000 mg/kg b.wt. for DBE (the mixture) and DMS By skin absorption, DBEs have a low order of acute toxicity to rabbits with dermal LD50s of 3,000 mg/kg .
COCAMIDOPROPYLBETAINE & (C10-16)ALKYL D-GLYCOPYRANOSIDE & 3-iodo-2-propynyl butyl carbamate	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions.
COCAMIDOPROPYLBETAINE & DIMETHYL GLUTARATE	The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

Acute Toxicity	✗	Carcinogenicity	✗
Skin Irritation/Corrosion	✗	Reproductivity	✗
Serious Eye Damage/Irritation	✗	STOT - Single Exposure	✗
Respiratory or Skin sensitisation	✗	STOT - Repeated Exposure	✗
Mutagenicity	✗	Aspiration Hazard	✗

Legend: ✗ – Data either not available or does not fill the criteria for classification
✓ – Data available to make classification

SECTION 12 Ecological information

Toxicity

Zep Manufacturing Mykal Hand Cleaning Wipes	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
diisodecyl dimethyl ammonium chloride	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
sodium chloride	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	20.76-36.17mg/L	4
	EC50	48h	Crustacea	0.00439-0.00565mg/l	4
	EC50	96h	Algae or other aquatic plants	1110.36mg/L	4

Continued...

Zep Manufacturing Mykal Hand Cleaning Wipes

	LC50	96h	Fish	1000mg/l	4
	NOEC(ECx)	6h	Fish	0.001mg/l	4
glyceryl cocoate, ethoxylated	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
dimethyl adipate	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	>100mg/l	2
	EC50	48h	Crustacea	72mg/l	2
	NOEC(ECx)	72h	Algae or other aquatic plants	12.5mg/l	2
cocamidopropylbetaine	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	1-10mg/l	1
	EC50	48h	Crustacea	6.5mg/l	1
	EC50	96h	Algae or other aquatic plants	0.55mg/l	1
	LC50	96h	Fish	1-10mg/l	Not Available
	EC0(ECx)	96h	Algae or other aquatic plants	0.09mg/l	1
ethylene glycol phenyl ether	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	>100mg/l	2
	EC50	48h	Crustacea	460mg/l	2
	LC50	96h	Fish	154mg/l	2
	NOEC(ECx)	24h	Fish	5mg/l	2
dimethyl glutarate	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	72h	Algae or other aquatic plants	36mg/l	2
dimethyl succinate	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	96h	Algae or other aquatic plants	254.4mg/l	2
	EC50	72h	Algae or other aquatic plants	>100mg/l	2
	EC50	48h	Crustacea	>100mg/l	2
	LC50	96h	Fish	>50<100mg/l	2
	EC50(ECx)	Not Available	Algae or other aquatic plants	>10mg/l	2
(C10-16)alkyl D-glycopyranoside	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	2.95mg/l	2
	NOEC(ECx)	672h	Fish	1mg/l	2
	EC50	72h	Algae or other aquatic plants	3.61mg/l	2
	EC50	48h	Crustacea	7mg/l	2
isopropanol	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	>1000mg/l	1
	EC50	48h	Crustacea	7550mg/l	4
	EC50	96h	Algae or other aquatic plants	>1000mg/l	1
	LC50	96h	Fish	>1400mg/l	4
	EC50(ECx)	24h	Algae or other aquatic plants	0.011mg/L	4
3-iodo-2-propynyl butyl carbamate	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	0.05-0.089mg/l	4
	EC50	72h	Algae or other aquatic plants	0.022mg/L	2
	EC50	48h	Crustacea	0.04mg/L	5
	NOEC(ECx)	0.5h	Fish	0.000005mg/l	4
water	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available

Legend: Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 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

DO NOT discharge into sewer or waterways.

Zep Manufacturing Mykal Hand Cleaning Wipes

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
sodium chloride	LOW	LOW
dimethyl adipate	LOW	LOW
ethylene glycol phenyl ether	LOW	LOW
dimethyl glutarate	LOW	LOW
dimethyl succinate	LOW	LOW
isopropanol	LOW (Half-life = 14 days)	LOW (Half-life = 3 days)
3-iodo-2-propynyl butyl carbamate	HIGH	HIGH
water	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
sodium chloride	LOW (LogKOW = 0.5392)
dimethyl adipate	LOW (LogKOW = 1.03)
ethylene glycol phenyl ether	LOW (LogKOW = 1.16)
dimethyl glutarate	LOW (LogKOW = 0.62)
dimethyl succinate	LOW (LogKOW = 0.35)
isopropanol	LOW (LogKOW = 0.05)
3-iodo-2-propynyl butyl carbamate	LOW (LogKOW = 2.4542)

Mobility in soil

Ingredient	Mobility
sodium chloride	LOW (KOC = 14.3)
dimethyl adipate	LOW (KOC = 10.9)
ethylene glycol phenyl ether	LOW (KOC = 12.12)
dimethyl glutarate	LOW (KOC = 10)
dimethyl succinate	LOW (KOC = 10)
isopropanol	HIGH (KOC = 1.06)
3-iodo-2-propynyl butyl carbamate	LOW (KOC = 365.3)

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal	- 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 licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material) - Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.
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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

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
diisodecyltrimethylammonium chloride	Not Available
sodium chloride	Not Available
glyceryl cocoate, ethoxylated	Not Available

Continued...

Product name	Group
dimethyl adipate	Not Available
cocamidopropylbetaine	Not Available
ethylene glycol phenyl ether	Not Available
dimethyl glutarate	Not Available
dimethyl succinate	Not Available
(C10-16)alkyl D-glycopyranoside	Not Available
isopropanol	Not Available
3-iodo-2-propynyl butyl carbamate	Not Available
water	Not Available

Transport in bulk in accordance with the IGC Code

Product name	Ship Type
diisodecyldimethylammonium chloride	Not Available
sodium chloride	Not Available
glyceryl cocoate, ethoxylated	Not Available
dimethyl adipate	Not Available
cocamidopropylbetaine	Not Available
ethylene glycol phenyl ether	Not Available
dimethyl glutarate	Not Available
dimethyl succinate	Not Available
(C10-16)alkyl D-glycopyranoside	Not Available
isopropanol	Not Available
3-iodo-2-propynyl butyl carbamate	Not Available
water	Not Available

SECTION 15 Regulatory information

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

diisodecyldimethylammonium chloride is found on the following regulatory lists Not Applicable	
sodium chloride is found on the following regulatory lists Australian Inventory of Industrial Chemicals (AIIC)	
glyceryl cocoate, ethoxylated is found on the following regulatory lists Australian Inventory of Industrial Chemicals (AIIC)	International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
dimethyl adipate is found on the following regulatory lists Australian Inventory of Industrial Chemicals (AIIC)	
cocamidopropylbetaine is found on the following regulatory lists Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5	Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6 Australian Inventory of Industrial Chemicals (AIIC)
ethylene glycol phenyl ether is found on the following regulatory lists Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6	Australian Inventory of Industrial Chemicals (AIIC)
dimethyl glutarate is found on the following regulatory lists Australian Inventory of Industrial Chemicals (AIIC)	
dimethyl succinate is found on the following regulatory lists Australian Inventory of Industrial Chemicals (AIIC)	
(C10-16)alkyl D-glycopyranoside is found on the following regulatory lists Australian Inventory of Industrial Chemicals (AIIC)	
isopropanol is found on the following regulatory lists Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australian Inventory of Industrial Chemicals (AIIC)	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic
3-iodo-2-propynyl butyl carbamate is found on the following regulatory lists	

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

Australian Inventory of Industrial Chemicals (AIIC)
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

water is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	No (diisodecyldimethylammonium chloride)
Canada - DSL	No (diisodecyldimethylammonium chloride)
Canada - NDSL	No (diisodecyldimethylammonium chloride; sodium chloride; dimethyl adipate; cocamidopropylbetaine; ethylene glycol phenyl ether; dimethyl glutarate; dimethyl succinate; (C10-16)alkyl D-glycopyranoside; isopropanol; 3-iodo-2-propynyl butyl carbamate; water)
China - IECSC	No (diisodecyldimethylammonium chloride)
Europe - EINEC / ELINCS / NLP	No (diisodecyldimethylammonium chloride; glyceryl cocoate, ethoxylated; (C10-16)alkyl D-glycopyranoside)
Japan - ENCS	No (diisodecyldimethylammonium chloride; glyceryl cocoate, ethoxylated)
Korea - KECI	No (diisodecyldimethylammonium chloride)
New Zealand - NZIoC	Yes
Philippines - PICCS	No (diisodecyldimethylammonium chloride)
USA - TSCA	No (diisodecyldimethylammonium chloride)
Taiwan - TCSI	No (diisodecyldimethylammonium chloride)
Mexico - INSQ	No (diisodecyldimethylammonium chloride; glyceryl cocoate, ethoxylated; dimethyl adipate; (C10-16)alkyl D-glycopyranoside)
Vietnam - NCI	No (diisodecyldimethylammonium chloride)
Russia - FBEPH	No (diisodecyldimethylammonium chloride; glyceryl cocoate, ethoxylated)
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

SECTION 16 Other information

Revision Date	01/06/2023
Initial Date	30/05/2023

SDS Version Summary

Version	Date of Update	Sections Updated
2.1	01/06/2023	Disposal considerations - Disposal, Firefighting measures - Fire Fighter (fire/explosion hazard), Firefighting measures - Fire Fighter (fire incompatibility), Handling and storage - Handling Procedure, Composition / information on ingredients - Ingredients, Handling and storage - Storage (storage incompatibility), Identification of the substance / mixture and of the company / undertaking - Supplier Information, Identification of the substance / mixture and of the company / undertaking - Synonyms, Identification of the substance / mixture and of the company / undertaking - Use, Name

Other information

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.

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
ES: Exposure Standard
OSF: Odour Safety Factor
NOAEL :No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index
AIIC: Australian Inventory of Industrial Chemicals
DSL: Domestic Substances List
NDSL: Non-Domestic Substances List
IECSC: Inventory of Existing Chemical Substance in China
EINECS: European Inventory of Existing Commercial chemical Substances
ELINCS: European List of Notified Chemical Substances
NLP: No-Longer Polymers

Zep Manufacturing Mykal Hand Cleaning Wipes

ENCS: Existing and New Chemical Substances Inventory

KECI: Korea Existing Chemicals Inventory

NZIoC: New Zealand Inventory of Chemicals

PICCS: Philippine Inventory of Chemicals and Chemical Substances

TSCA: Toxic Substances Control Act

TCSI: Taiwan Chemical Substance Inventory

INSQ: Inventario Nacional de Sustancias Químicas

NCI: National Chemical Inventory

FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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