

# **Homebright Fume Free Oven Cleaner**

JTC Import Export Pty Ltd

Chemwatch: **5391-42** Version No: **3.1.1.1** 

Safety Data Sheet according to WHS and ADG requirements

Chemwatch Hazard Alert Code: 3

Issue Date: **14/02/2020** Print Date: **28/02/2020** S.GHS.AUS.EN

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

#### **Product Identifier**

Product name	Homebright Fume Free Oven Cleaner
Synonyms	Product code: 67515
Proper shipping name	AEROSOLS
Other means of identification	Not Available

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

Relevant identified uses Oven cleaner - Aerosol.

## Details of the supplier of the safety data sheet

Registered company name	JTC Import Export Pty Ltd
Address	98 South Park Drive Dandenong South VIC 3175 Australia
Telephone	+61 3 9532 5100
Fax	+61 3 9532 6102
Website	http://www.jtcimportexport.com.au
Email	sales@jtcimportexport.com.au

#### **Emergency telephone number**

Association / Organisation	JTC Import Export Pty Ltd
Emergency telephone numbers	+61 3 9532 5100 (Mon-Thurs 8.30am to 5.30pm; Friday 8.30am to 3pm)
Other emergency telephone numbers	Not Available

# **SECTION 2 HAZARDS IDENTIFICATION**

#### Classification of the substance or mixture

Poisons Schedule	Not Applicable
Classification <sup>[1]</sup>	Skin Corrosion/Irritation Category 2, Serious Eye Damage Category 1, Skin Sensitizer Category 1, Carcinogenicity Category 2, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation)
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

# Label elements

Hazard pictogram(s)







SIGNAL WORD DANGER

## Hazard statement(s)

H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H335	May cause respiratory irritation.

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AUH044	Risk of explosion if heated under confinement.
Precautionary statement(s) Prevention	
P201	Obtain special instructions before use.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P261	Avoid breathing mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.

## Precautionary statement(s) Response

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTER or doctor/physician.
P321	Specific treatment (see advice on this label).
P362	Take off contaminated clothing and wash before reuse.
P302+P352	IF ON SKIN: Wash with plenty of water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

## Precautionary statement(s) Storage

P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

## Precautionary statement(s) Disposal

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

## **SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**

#### Substances

See section below for composition of Mixtures

## Mixtures

CAS No	%[weight]	Name
102-71-6	1-5	triethanolamine
141-43-5	1-5	<u>ethanolamine</u>
10213-79-3	1-5	sodium metasilicate, pentahydrate
111-76-2	1-5	ethylene glycol monobutyl ether
9002-92-0	0.1-1	lauryl alcohol, ethoxylated
68476-85-7.	2-10	hydrocarbon propellant

## **SECTION 4 FIRST AID MEASURES**

# Description of first aid measures

Description of first aid measur	escription of first and measures	
Eye Contact	If aerosols come in contact with the eyes:  Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes with fresh 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.  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 solids or aerosol mists are deposited upon the skin:  Flush skin and hair with running water (and soap if available).  Remove any adhering solids with industrial skin cleansing cream.  DO NOT use solvents.  Seek medical attention in the event of irritation.	
Inhalation	If aerosols, fumes or combustion products are inhaled:  Remove to fresh air.  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.  If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.  Transport to hospital, or doctor.	
Ingestion	<ul> <li>If swallowed do NOT induce vomiting.</li> <li>If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>Observe the patient carefully.</li> <li>Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>Seek medical advice.</li> </ul>	

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## Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## **SECTION 5 FIREFIGHTING MEASURES**

## Extinguishing media

#### SMALL FIRE:

► Water spray, dry chemical or CO2

#### LARGE FIRE:

Water spray or fog.

# 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	<ul> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>May be violently or explosively reactive.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water course.</li> <li>If safe, switch off electrical equipment until vapour fire hazard removed.</li> <li>Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>DO NOT approach containers suspected to be hot.</li> <li>Cool fire exposed containers with water spray from a protected location.</li> <li>If safe to do so, remove containers from path of fire.</li> <li>Equipment should be thoroughly decontaminated after use.</li> </ul>
Fire/Explosion Hazard	<ul> <li>Non combustible.</li> <li>Not considered to be a significant fire risk.</li> <li>Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>Aerosol cans may explode on exposure to naked flames.</li> <li>Rupturing containers may rocket and scatter burning materials.</li> <li>Hazards may not be restricted to pressure effects.</li> <li>May emit acrid, poisonous or corrosive fumes.</li> <li>Decomposes on heating and may emit toxic fumes of carbon monoxide (CO).</li> <li>Decomposition may produce toxic fumes of: carbon dioxide (CO2) nitrogen oxides (NOx) other pyrolysis products typical of burning organic material.</li> </ul>
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	<ul> <li>Clean up all spills immediately.</li> <li>Avoid breathing vapours and contact with skin and eyes.</li> <li>Wear protective clothing, impervious gloves and safety glasses.</li> <li>Shut off all possible sources of ignition and increase ventilation.</li> <li>Wipe up.</li> <li>If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated.</li> <li>Undamaged cans should be gathered and stowed safely.</li> </ul>
Major Spills	<ul> <li>Clear area of personnel and move upwind.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>May be violently or explosively reactive.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water courses</li> <li>No smoking, naked lights or ignition sources.</li> <li>Increase ventilation.</li> <li>Stop leak if safe to do so.</li> <li>Water spray or fog may be used to disperse / absorb vapour.</li> <li>Absorb or cover spill with sand, earth, inert materials or vermiculite.</li> <li>If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated.</li> <li>Undamaged cans should be gathered and stowed safely.</li> <li>Collect residues and seal in labelled drums for disposal.</li> </ul>

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

## **SECTION 7 HANDLING AND STORAGE**

# Precautions for safe handling

## Safe handling

- ► Avoid all personal contact, including inhalation.
- $\mbox{\ensuremath{\,^{\blacktriangleright}}}$  Wear protective clothing when risk of exposure occurs.
- ► Use in a well-ventilated area.

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- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- Avoid smoking, naked lights or ignition sources.
- Avoid contact with incompatible materials.
- ► When handling, **DO NOT** eat, drink or smoke.
- ► DO NOT incinerate or puncture aerosol cans.
- ▶ DO NOT spray directly on humans, exposed food or food utensils.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- ▶ Use good occupational work practice.
- ▶ Observe manufacturer's storage and handling recommendations contained within this SDS.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

Other information

▶ Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can

#### Conditions for safe storage, including any incompatibilities

#### Suitable container

- Aerosol dispenser.
- ► Check that containers are clearly labelled.
- Storage incompatibility
- 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

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	triethanolamine	Triethanolamine	5 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	ethanolamine	Ethanolamine	3 ppm / 7.5 mg/m3	15 mg/m3 / 6 ppm	Not Available	Not Available
Australia Exposure Standards	ethylene glycol monobutyl ether	2-Butoxyethanol	20 ppm / 96.9 mg/m3	242 mg/m3 / 50 ppm	Not Available	Not Available
Australia Exposure Standards	hydrocarbon propellant	LPG (liquified petroleum gas)	1000 ppm / 1800 mg/m3	Not Available	Not Available	Not Available

#### **EMERGENCY LIMITS**

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
triethanolamine	Triethanolamine; (Trihydroxytriethylamine)	15 mg/m3	240 mg/m3	1,500 mg/m3
ethanolamine	Ethanolamine	6 ppm	170 ppm	1,000 ppm
sodium metasilicate, pentahydrate	Sodium metasilicate pentahydrate	6.6 mg/m3	73 mg/m3	440 mg/m3
sodium metasilicate, pentahydrate	Sodium silicate; (Sodium metasilicate)	3.8 mg/m3	42 mg/m3	250 mg/m3
ethylene glycol monobutyl ether	Butoxyethanol, 2-; (Glycol ether EB)	60 ppm	120 ppm	700 ppm
lauryl alcohol, ethoxylated	Brij-35; (alpha-Dodecyl-omega-hydroxypoly(oxyethylene))	2.9 mg/m3	31 mg/m3	200 mg/m3
hydrocarbon propellant	Liquified petroleum gas; (L.P.G.)	65,000 ppm	2.30E+05 ppm	4.00E+05 ppm

Ingredient	Original IDLH	Revised IDLH
triethanolamine	Not Available	Not Available
ethanolamine	30 ppm	Not Available
sodium metasilicate, pentahydrate	Not Available	Not Available
ethylene glycol monobutyl ether	700 ppm	Not Available
lauryl alcohol, ethoxylated	Not Available	Not Available
hydrocarbon propellant	2,000 ppm	Not Available

## OCCUPATIONAL EXPOSURE BANDING

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
sodium metasilicate, pentahydrate	E	≤ 0.01 mg/m³
lauryl alcohol, ethoxylated	E	≤ 0.1 ppm
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.	

## **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.

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

Employers may need to use multiple types of controls to prevent employee overexposure.

General exhaust is adequate under normal conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection.

Provide adequate ventilation in warehouse or closed storage areas.

Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Speed:
aerosols, (released at low velocity into zone of active generation)	0.5-1 m/s
direct spray, spray painting in shallow booths, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)

Within each range the appropriate value depends on:

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

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

## Personal protection









# Eye and face protection

No special equipment for minor exposure i.e. when handling small quantities.

OTHERWISE: For potentially moderate or heavy exposures:

- Safety glasses with side shields.
- ▶ NOTE: Contact lenses pose a special hazard; soft lenses may absorb irritants and ALL lenses concentrate them.

## Skin protection

See Hand protection below

## Hands/feet protection

- ▶ No special equipment needed when handling small quantities. ► OTHERWISE:
- For potentially moderate exposures:
- ▶ Wear general protective gloves, eg. light weight rubber gloves.
- ► For potentially heavy exposures:
- ▶ Wear chemical protective gloves, eg. PVC. and safety footwear.

#### **Body protection**

See Other protection below

#### Other protection

No special equipment needed when handling small quantities.

# OTHERWISE:

- Overalls.
  - ▶ Skin cleansing cream.
  - Eyewash unit.
  - Do not spray on hot surfaces.

#### Recommended material(s)

#### GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

## "Forsberg Clothing Performance Index".

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

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Material	СРІ
BUTYL	A
NEOPRENE	В
NITRILE	В
PVC	В
BUTYL/NEOPRENE	С
HYPALON	С
NAT+NEOPR+NITRILE	С
NATURAL RUBBER	С
NATURAL+NEOPRENE	С
NEOPRENE/NATURAL	С
NITRILE+PVC	С
PE/EVAL/PE	С
PVA	С

#### Respiratory protection

Type KAX-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	KAX-AUS P2	-	KAX-PAPR-AUS / Class 1 P2
up to 50 x ES	-	KAX-AUS / Class 1 P2	-
up to 100 x ES	-	KAX-2 P2	KAX-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)

Aerosols, in common with most vapours/ mists, should never be used in confined spaces without adequate ventilation. Aerosols, containing agents designed to enhance or mask smell, have triggered allergic reactions in predisposed individuals.

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SARANEX-23	С
VITON	С

- \* 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

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

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

## **SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

#### Information on basic physical and chemical properties

Appearance	Clear liquid with fresh odour; mixes with water.		
Physical state	Liquid	Relative density (Water = 1)	0.95
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Applicable
pH (as supplied)	11	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 Applicable
Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

# **SECTION 10 STABILITY AND REACTIVITY**

Reactivity	See section 7
Chemical stability	<ul> <li>Elevated temperatures.</li> <li>Presence of open flame.</li> <li>Product is considered stable.</li> <li>Hazardous polymerisation will not occur.</li> </ul>
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.  WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.
Ingestion	Not normally a hazard due to physical form of product. Considered an unlikely route of entry in commercial/industrial environments
Skin Contact	This material can cause inflammation of the skin on contact in some persons.  The material may accentuate any pre-existing dermatitis condition  Spray mist may produce discomfort  Open cuts, abraded or irritated skin should not be exposed to this material  Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Еуе	If applied to the eyes, this material causes severe eye damage.
Chronic	There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.  Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems.  Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.  WARNING: Aerosol containers may present pressure related hazards.

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	TOXICITY	IRRITATION
Homebright Fume Free Oven	Dermal (None) LD50: 34681 mg/kg* <sup>[2]</sup>	Not Available
Cleaner	Inhalation (None) LC50: 50 mg/l(dust&mist)*[2]	
	Oral (None) LD50: 17627 mg/kg* <sup>[2]</sup>	i .
	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg <sup>[2]</sup>	Eye (rabbit): 0.1 ml -
	Oral (rat) LD50: 4190 mg/kg <sup>[2]</sup>	Eye (rabbit): 10 mg - mild
		Eye (rabbit): 5.62 mg - SEVERE
triethanolamine		minor conjunctival irritation
		no irritation *
		Skin (human): 15 mg/3d (int)-mild
		Skin (rabbit): 4 h occluded
		Skin (rabbit): 560 mg/24 hr- mild
	TOXICITY	IRRITATION
ethanolamine	Dermal (rabbit) LD50: 1000 mg/kg <sup>[2]</sup>	Eye (rabbit): 0.76 mg - SEVERE
	Oral (rat) LD50: >500 mg/kg <sup>[2]</sup>	Skin (rabbit):505 mg open-moderate
	TOXICITY	IRRITATION
sodium metasilicate,	Oral (rat) LD50: 847 mg/kg <sup>[2]</sup>	Skin (human): 250 mg/24h SEVERE
pentahydrate		Skin (rabbit): 250 mg/24h SEVERE
	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Eye (rabbit): 100 mg SEVERE  Eye (rabbit): 100 mg/24h-moderate
ethylene glycol monobutyl	Inhalation (rat) LC50: 449.48655 mg/l/4H <sup>[2]</sup>	1
ether	Oral (rat) LD50: 250 mg/kg <sup>[2]</sup>	Eye: adverse effect observed (irritating) <sup>[1]</sup> Skin (rabbit): 500 mg, open; mild
		Skin: (labbit). 300 flig, open, fillid  Skin: adverse effect observed (irritating) <sup>[1]</sup>
		Skin: no adverse effect observed (infating)[1]
	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Eye (rabbit): 0.75 mg/24h SEVERE
	Oral (rat) LD50: 1000 mg/kg <sup>[2]</sup>	Eye (rabbit): 100 mg
lauryl alcohol, ethoxylated		Eye: adverse effect observed (irritating) <sup>[1]</sup>
		Skin (rabbit): 500 mg/24h mild
		Skin (rabbit): 75 mg/24h mild
		Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
hdu	TOXICITY	IRRITATION
hydrocarbon propellant	Not Available	Not Available
Legend:	Value obtained from Europe ECHA Registered Substances - specified data extracted from RTECS - Register of Toxic Effect	Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise of chemical Substances
	The following information refers to contact allergens as a group	o and may not be specific to this product.  na, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact
TRIETHANOLAMINE	involve antibody-mediated immune reactions. The significance distribution of the substance and the opportunities for contact w distributed can be a more important allergen than one with stro clinical point of view, substances are noteworthy if they product Studies done show that triethanolamine is of low toxicity following shown to cause cancer, genetic defects, reproductive or developments of 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 an in NOTE: Substance has been shown to be mutagenic in at least cellular DNA.  Lachrymation, diarrhoea, convulsions, urinary tract changes, ch	
ETHANOLAMINE	Dermal rabbit value quoted above is for occluded patch in male	e or female animals * Union Carbide

ETHANOLAMINE

\* Bayer

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#### SODIUM METASILICATE, PENTAHYDRATE

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 respiratory tract irritation, and result in damage to the lung including reduced lung function. sodium metasilicate anhydrous:

NOTE: Changes in kidney, liver, spleen and lungs are observed in animals exposed to high concentrations of this substance by all routes. \*\* ASCC (NZ) SDS

For ethylene glycol monoalkyl ethers and their acetates (EGMAEs):

Typical members of this category are ethylene glycol propylene ether (EGPE), ethylene glycol butyl ether (EGBE) and ethylene glycol hexyl ether (EGHE) and their acetates.

EGMAEs are substrates for alcohol dehydrogenase isozyme ADH-3, which catalyzes the conversion of their terminal alcohols to aldehydes (which are transient metabolites). Further, rapid conversion of the aldehydes by aldehyde dehydrogenase produces alkoxyacetic acids, which are the predominant urinary metabolites of mono substituted glycol ethers.

Acute Toxicity: Oral LD50 values in rats for all category members range from 739 (EGHE) to 3089 mg/kg bw (EGPE), with values increasing with decreasing molecular weight. Four to six hour acute inhalation toxicity studies were conducted for these chemicals in rats at the highest vapour concentrations practically achievable. Values range from LC0 > 85 ppm (508 mg/m3) for EGHE, LC50 > 400ppm (2620 mg/m3) for EGBEA to LC50 > 2132 ppm (9061 mg/m3) for EGPE. No lethality was observed for any of these materials under these conditions. Dermal LD50 values in rabbits range from 435 mg/kg bw (EGBE) to 1500 mg/kg bw (EGBEA). Overall these category members can be considered to be of low to moderate acute toxicity. All category members cause reversible irritation to skin and eyes, with EGBEA less irritating and EGHE more irritating than the other category members. EGPE and EGBE are not sensitisers in experimental animals or humans. Signs of acute toxicity in rats, mice and rabbits are consistent with haemolysis (with the exception of EGHE) and non-specific CNS depression typical of organic solvents in general. Alkoxyacetic acid metabolites, propoxyacetic acid (PAA) and butoxyacetic acid (BAA), are responsible for the red blood cell hemolysis. Signs of toxicity in humans deliberately ingesting cleaning fluids containing 9-22% EGBE are similar to those of rats, with the exception of haemolysis. Although decreased blood haemoglobin and/or haemoglobinuria were observed in some of the human cases, it is not clear if this was due to haemolysis or haemodilution as a result of administration of large volumes of fluid. Red blood cells of humans are many-fold more resistant to toxicity from EGPE and EGBE *in vitro* than those of rats.

Repeat dose toxicity: The fact that the NOAEL for repeated dose toxicity of EGBE is less than that of EGPE is consistent with red blood cells being more sensitive to EGBE than EGPE. Blood from mice, rats, hamsters, rabbits and baboons were sensitive to the effects of BAA *in vitro* and displayed similar responses, which included erythrocyte swelling (increased haematocrit and mean corpuscular hemoglobin), followed by hemolysis. Blood from humans, pigs, dogs, cats, and guinea pigs was less sensitive to haemolysis by BAA *in vitro*.

Mutagenicity: In the absence and presence of metabolic activation, EGBE tested negative for mutagenicity in Ames tests conducted in *S. typhimurium* strains TA97, TA98, TA100, TA1535 and TA1537 and EGHE tested negative in strains TA98, TA100, TA1535, TA1537 and TA1538. *In vitro* cytogenicity and sister chromatid exchange assays with EGBE and EGHE in Chinese Hamster Ovary Cells with and without metabolic activation and in vivo micronucleus tests with EGBE in rats and mice were negative, indicating that these glycol ethers are not genotoxic.

Carcinogenicity: In a 2-year inhalation chronic toxicity and carcinogenicity study with EGBE in rats and mice a significant increase in the incidence of liver haemangiosarcomas was seen in male mice and forestomach tumours in female mice. It was decided that based on the mode of action data available, there was no significant hazard for human carcinogenicity

Reproductive and developmental toxicity. The results of reproductive and developmental toxicity studies indicate that the glycol ethers in this category are not selectively toxic to the reproductive system or developing fetus, developmental toxicity is secondary to maternal toxicity. The repeated dose toxicity studies in which reproductive organs were examined indicate that the members of this category are not associated with toxicity to reproductive organs (including the testes).

Results of the developmental toxicity studies conducted via inhalation exposures during gestation periods on EGPE (rabbits -125, 250, 500 ppm or 531, 1062, or 2125 mg/m3 and rats - 100, 200, 300, 400 ppm or 425, 850, 1275, or 1700 mg/m3), EGBE (rat and rabbit - 25, 50, 100, 200 ppm or 121, 241, 483, or 966 mg/m3), and EGHE (rat and rabbit - 20.8, 41.4, 79.2 ppm or 124, 248, or 474 mg/m3) indicate that the members of the category are not teratogenic.

The NOAELs for developmental toxicity are greater than 500 ppm or 2125 mg/m3 (rabbit-EGPE), 100 ppm or 425 mg/m3 (rat-EGPE), 50 ppm or 241 mg/m3 (rat EGBE) and 100 ppm or 483 mg/m3 (rabbit EGBE) and greater than 79.2 ppm or 474 mg/m3 (rat and rabbit-EGHE). Animal testing showed that exposure to ethylene glycol monobutyl ether resulted in toxicity to both the mother and the embryo. Reproductive effects were thought to be less than that of other monoalkyl ethers of ethylene glycol.

Chronic exposure may cause anaemia, with enlargement and fragility of red blood cells. It is thought that in animals butoxyethanol may cause generalized clotting and bone infarction. In animals, 2-butoxyethanol also increased the rate of some cancers, including liver cancer. For ethylene glycol:

Ethylene glycol is quickly and extensively absorbed throughout the gastrointestinal tract. Limited information suggests that it is also absorbed through the airways; absorption through skin is apparently slow. Following absorption, it is distributed throughout the body. In humans, it is initially metabolized by alcohol dehydrogenase to form glycoaldehyde, which is rapidly converted to glycolic acid and glyoxal. These breakdown products are oxidized to glyoxylate, which may be further metabolized to formic acid, oxalic acid, and glycine. Breakdown of both glycine and formic acid can generate carbon dioxide, which is one of the major elimination products of ethylene glycol. In addition to exhaled carbon dioxide, ethylene glycol is eliminated in the urine as both the parent compound and glycolic acid. Elimination is rapid and occurs within a few hours. Respiratory effects: Respiratory system involvement occurs 12-24 hours after swallowing sufficient amounts of ethylene glycol. Symptoms include hyperventilation, shallow rapid breathing, and generalized swelling of the lungs with calcium oxalate deposits occasionally appearing in the lungs. Respiratory system involvement appears to be dose-dependent and occurs at the same time as cardiovascular changes. Later, there may be other changes compatible with adult respiratory distress syndrome (ARDS). Swelling of the lung can be a result of heart failure, ARDS, or aspiration of stomach contents. Symptoms related to acidosis such as fast or excessive breathing are frequently observed; however, major symptoms such as swelling of the lung and inflammation of the bronchi and lungs are relatively rare, and are usually seen only in extreme

Cardiovascular effects: Cardiovascular system involvement in humans occurs at the same time as respiratory system involvement, during the second phase of ethylene glycol poisoning by swallowing, which is 12-24 hours after acute exposure. The symptoms of poisoning involving the heart include increased heart rate, heart enlargement and ventricular gallop. There may also be high or low blood pressure, which may progress to cardiogenic shock. In lethal cases, inflammation of the heart muscle has been observed at autopsy. Cardiovascular involvement appears to be rare and usually seen after swallowing higher doses of ethylene glycol. In summary, acute exposure to high levels of ethylene glycol can cause serious cardiovascular effects in humans. The effects of a long-term, low-dose exposure are unknown.

Gastrointestinal effects: Common early acute effects of swallowing ethylene glycol include nausea, vomiting with or without blood, heartburn and abdominal cramping and pain. One patient showed intermittent diarrhea and pain, and after surgery, deposition of oxalate crystals was shown to have occurred.

Musculoskeletal effects: Reported musculoskeletal effects in cases of acute ethylene glycol poisoning include diffuse muscle tenderness and pain, associated with high levels of creatinine in the blood, and jerks and contractions associated with low calcium.

Liver effects: Autopsies carried out on people who died following acute ethylene glycol poisoning showed deposition of calcium oxalate in the liver as well as hydropic and fatty degeneration and cell death (necrosis) of the liver.

Kidney effects: Adverse kidney effects are seen during the third stage of ethylene glycol poisoning, 2-3 days after acute exposure. Calcium oxalate crystals are deposited in the tubules and are seen in the urine. There may also be degeneration and death of tubule cells, and inflammation of the tubule interstitium. If untreated, the degree of kidney damage progresses and leads to blood and protein in the urine, decreased kidney function, reduction in urine output and ultimately, kidney failure. With adequate supportive therapy, kidney function can return to normal or near normal.

Metabolic effects: Metabolic changes can occur within 12 hours of exposure to ethylene glycol. There may be metabolic acidosis, caused by accumulation of glycolic acid in the blood and therefore a reduction in blood pH. The anion gap is increased, due to increased unmeasured anions (mainly glycolate).

Effects on the nervous system: Adverse reactions involving the nervous system are among the first symptoms to appear in humans after ethylene

# ETHYLENE GLYCOL MONOBUTYL ETHER

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#### Homebright Fume Free Oven Cleaner

glycol is swallowed. These early effects are also the only symptoms caused by unmetabolised ethylene glycol. Together with metabolic effects (see above), they occur from 0.5-12 hours after exposure and are considered to be part of the first stage in ethylene glycol poisoning. Inco-ordination, slurred speech, confusion and sleepiness are common in the early stages, as are irritation, restlessness and disorientation. Later, there may be effects on cranial nerves (which may be reversible over many months). Swelling of the brain (cerebrum) and crystal deposits of calcium oxalate in the walls of the small blood vessels of the brain were found at autopsy in people who died after acute ethylene glycol poisoning

Reproductive effects: Animal testing showed that ethylene glycol may affect fertility, survival of fetuses and the male reproductive organs. Effects on development: Animal studies indicate that birth defects may occur after exposure in pregnancy; there may also be reduction in foetal weight.

Cancer: No studies are known regarding cancer effects in humans or animal, after skin exposure to ethylene glycol.

Genetic toxicity: No human studies available, but animal testing results are consistently negative

#### Polyethers (such as ethoxylated surfactants and polyethylene glycols) are highly susceptible to being oxidized in the air. They then form complex mixtures of oxidation products.

Animal testing reveals that whole the pure, non-oxidised surfactant is non-sensitizing, many of the oxidation products are sensitisers. The oxidization products also cause irritation.

Humans 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 swallowing, inhalation, or contact with the skin or eyes. Studies of acute toxicity show that relatively high volumes would have to occur to produce any toxic response. No death due to poisoning with alcohol ethoxylates has ever been reported. Studies show that alcohol ethoxylates have low toxicity through swallowing and skin contact.

#### Animal studies show these chemicals may produce gastrointestinal irritation, stomach ulcers, hair standing up, diarrhea and lethargy. Slight to LAURYL ALCOHOL, severe irritation occurred when undiluted alcohol ethyoxylates were applied to the skin and eyes of animals. These chemicals show no indication ETHOXYLATED of genetic toxicity or potential to cause mutations and cancers. Toxicity is thought to be substantially lower than that of nonylphenol ethoxylates. Some of the oxidation products of this group of substances may have sensitizing properties.

As they cause less irritation, nonionic surfactants are often preferred to ionic surfactants in topical products. However, their tendency to auto-oxidise also increases their irritation. Due to their irritating effect it is difficult to diagnose allergic contact dermatitis (ACD) by patch testing. 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.

Tri-ethylene glycol ethers undergo enzymatic oxidation to toxic alkoxy acids. They may irritate the skin and the eyes. At high oral doses, they may cause depressed reflexes, flaccid muscle tone, breathing difficulty and coma. Death may result in experimental animal, However, repeated exposure may cause dose dependent damage to the kidneys as well as reproductive and developmental defects.

**HYDROCARBON PROPELLANT** 

No significant acute toxicological data identified in literature search, inhalation of the gas

TRIETHANOLAMINE & **ETHANOLAMINE & SODIUM** METASILICATE, PENTAHYDRATE & LAURYL ALCOHOL, ETHOXYLATED

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. 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. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production.

Overexposure to most of these materials may cause adverse health effects.

Many amine-based compounds can cause release of histamines, which, in turn, can trigger allergic and other physiological effects, including constriction of the bronchi or asthma and inflammation of the cavity of the nose. Whole-body symptoms include headache, nausea, faintness anxiety, a decrease in blood pressure, rapid heartbeat, itching, reddening of the skin, urticaria (hives) and swelling of the face, which are usually transient.

There are generally four routes of possible or potential exposure: inhalation, skin contact, eye contact, and swallowing. Inhalation: Inhaling vapours may result in moderate to severe irritation of the tissues of the nose and throat and can irritate the lungs. Higher concentrations of certain amines can produce severe respiratory irritation, characterized by discharge from the nose, coughing, difficulty in breathing and chest pain. Chronic exposure via inhalation may cause headache, nausea, vomiting, drowsiness, sore throat, inflammation of the bronchi and lungs, and possible lung damage. Repeated and/or prolonged exposure to some amines may result in liver disorders, jaundice and liver enlargement. Some amines have been shown to cause kidney, blood and central nervous system disorders in animal studies. While most polyurethane amine catalysts are not sensitisers, some certain individuals may also become sensitized to amines and my experience distress while breathing, including asthma-like attacks, whenever they are subsequently exposed to even very small amounts of vapours. Once sensitized, these individuals must avoid any further exposure to amines. Chronic overexposure may lead to permanent lung injury, including reduction in lung function, breathlessness, chronic inflammation of the bronchi, and immunologic lung disease.

TRIETHANOLAMINE & **ETHANOLAMINE**  Products with higher vapour pressures may reach higher concentrations in the air, and this increases the likelihood of worker exposure. Inhalation hazards are increased when exposure to amine catalysts occurs in situations that produce aerosols, mists or heated vapours. Such situations include leaks in fitting or transfer lines. Medical conditions generally aggravated by inhalation exposure include asthma, bronchitis and emphysema Skin contact: Skin contact with amine catalysts poses a number of concerns. Direct skin contact can cause moderate to severe irritation and

injury, from simple redness and swelling to painful blistering, ulceration, and chemical burns. Repeated or prolonged exposure may also result in severe cumulative skin inflammation. Skin contact with some amines may result in allergic sensitization. Sensitised persons should avoid all contact with amine catalysts. Whole-body effects resulting from the absorption of the amines though skin exposure may include headaches. nausea, faintness, anxiety, decrease in blood pressure, reddening of the skin, hives, and facial swelling. These symptoms may be related to the pharmacological action of the amines, and they are usually temporary.

Eye contact: Amine catalysts are alkaline and their vapours are irritating to the eyes, even at low concentrations. Direct contact with liquid amine may cause severe irritation and tissue injury, and the "burning" may lead to blindness. Contact with solid products may result in mechanical irritation, pain and corneal injury.

Exposed persons may experience excessive tearing, burning, inflammation of the conjunctiva, and swelling of the cornea, which manifests as a blurred or foggy vision with a blue tint, and sometimes a halo phenomenon around lights. These symptoms are temporary and usually disappear when exposure ends. Some people may experience this effect even when exposed to concentrations that do not cause respiratory irritation. Ingestion: Amine catalysts have moderate to severe toxicity if swallowed. Some amines can cause severe irritation, ulcers and burns of the mouth, throat, gullet and gastrointestinal tract. Material aspirated due to vomiting can damage the bronchial tubes and the lungs. Affected people may also experience pain in the chest or abdomen, nausea, bleeding of the throat and gastrointestinal tract, diarrhea, dizziness, drowsiness, thirst, collapse of circulation, coma and even death.

**TRIETHANOLAMINE & ETHANOLAMINE &** ETHYLENE GLYCOL MONOBUTYL ETHER & LAURYL ALCOHOL, **ETHOXYLATED** 

The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

**TRIETHANOLAMINE & ETHANOLAMINE & SODIUM** METASILICATE.

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.

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PENTAHYDRATE & ETHYLENE GLYCOL MONOBUTYL ETHER & LAURYL ALCOHOL, ETHOXYLATED

Acute Toxicity	×	Carcinogenicity	<b>*</b>
Skin Irritation/Corrosion	✓	Reproductivity	×
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✓
Respiratory or Skin sensitisation	<b>✓</b>	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×

Legend:

X − Data either not available or does not fill the criteria for classification
 ✓ − Data available to make classification

## **SECTION 12 ECOLOGICAL INFORMATION**

#### Toxicity

Homebright Fume Free Oven	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
Cleaner	Not Available	Not Available	Not Available	Not Available	Not Available
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	11-800mg/L	2
	EC50	48	Crustacea	609.88mg/L	2
triethanolamine	EC50	96	Algae or other aquatic plants	169mg/L	1
	EC0	24	Crustacea	1-530mg/L	2
	NOEC	504	Crustacea	16mg/L	1
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	2-70mg/L	2
ethanolamine	EC50	48	Crustacea	32.6mg/L	2
	EC50	72	Algae or other aquatic plants	2.1mg/L	2
	NOEC	504	Crustacea	0.85mg/L	2
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
sodium metasilicate,	LC50	96	Fish	2-320mg/L	2
pentahydrate	EC50	48	Crustacea	1-700mg/L	2
	EC50	72	Algae or other aquatic plants	207mg/L	2
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	1-700mg/L	2
ethylene glycol monobutyl ether	EC50	48	Crustacea	ca.1-800mg/L	2
ctici	EC50	72	Algae or other aquatic plants	1-840mg/L	2
	NOEC	24	Crustacea	>1-mg/L	2
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	1.5mg/L	4
lauryl alcohol, ethoxylated	EC50	72	Algae or other aquatic plants	2.06mg/L	2
	BCF	72	Fish	1mg/L	4
	NOEC	504	Crustacea	0.24mg/L	5
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	24.11mg/L	2
hydrocarbon propellant	EC50	96	Algae or other aquatic plants	7.71mg/L	2
	LC50	96	Fish	24.11mg/L	2
	EC50	96	Algae or other aquatic plants	7.71mg/L	2
Legend:		IUCLID Toxicity Data 2. Europe ECHA Regis     Aquatic Toxicity Data (Estimated) 4. US EPA,			

DO NOT discharge into sewer or waterways.

## Persistence and degradability

Persistence: Air Ingredient Persistence: Water/Soil

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triethanolamine	LOW	LOW
ethanolamine	LOW	LOW
ethylene glycol monobutyl ether	LOW (Half-life = 56 days)	LOW (Half-life = 1.37 days)
lauryl alcohol, ethoxylated	LOW	LOW

# Bioaccumulative potential

Ingredient	Bioaccumulation
triethanolamine	LOW (BCF = 3.9)
ethanolamine	LOW (LogKOW = -1.31)
ethylene glycol monobutyl ether	LOW (BCF = 2.51)
lauryl alcohol, ethoxylated	LOW (LogKOW = 3.6722)

## Mobility in soil

Ingredient	Mobility
triethanolamine	LOW (KOC = 10)
ethanolamine	HIGH (KOC = 1)
ethylene glycol monobutyl ether	HIGH (KOC = 1)
lauryl alcohol, ethoxylated	LOW (KOC = 10)

# **SECTION 13 DISPOSAL CONSIDERATIONS**

#### Waste treatment methods

Product / Packaging disposal

- ► Consult State Land Waste Management Authority for disposal.
- ▶ Discharge contents of damaged aerosol cans at an approved site.
- Allow small quantities to evaporate.
- ► DO NOT incinerate or puncture aerosol cans.
- ▶ Bury residues and emptied aerosol cans at an approved site.

## **SECTION 14 TRANSPORT INFORMATION**

# Labels Required



## Land transport (ADG)

. , ,			
UN number	1950		
UN proper shipping name	AEROSOLS		
Transport hazard class(es)	Class 2.2 Subrisk Not Applicable		
Packing group	Not Applicable		
Environmental hazard	Not Applicable		
Special precautions for user	Special provisions   63 190 277 327 344 381		

## Air transport (ICAO-IATA / DGR)

UN number	1950		
UN proper shipping name	Aerosols, non-flammable	•	
Transport hazard class(es)	ICAO/IATA Class ICAO / IATA Subrisk ERG Code	2.2 Not Applicable 2L	
Packing group	Not Applicable		
Environmental hazard	Not Applicable	Not Applicable	
Special precautions for user	Special provisions     A98 A145 A167 A802       Cargo Only Packing Instructions     203		

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Cargo Only Maximum Qty / Pack	150 kg
Passenger and Cargo Packing Instructions	203
Passenger and Cargo Maximum Qty / Pack	75 kg
Passenger and Cargo Limited Quantity Packing Instructions	Y203
Passenger and Cargo Limited Maximum Qty / Pack	30 kg G

#### Sea transport (IMDG-Code / GGVSee)

UN number	1950		
UN proper shipping name	AEROSOLS		
Transport hazard class(es)	IMDG Class 2.2  IMDG Subrisk Not Applicable		
Packing group	Not Applicable		
Environmental hazard	Not Applicable		
Special precautions for user	EMS Number         F-D , S-U           Special provisions         63 190 277 327 344 381 959           Limited Quantities         1000 ml		

#### 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

#### TRIETHANOLAMINE IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -Schedule 4

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -

GESAMP/EHS Composite List - GESAMP Hazard Profiles

IMO IBC Code Chapter 17: Summary of minimum requirements

IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

#### ETHANOLAMINE IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Dangerous Goods Code (ADG Code) - Dangerous Goods List

Australia Dangerous Goods Code (ADG Code) - List of Emergency Action Codes Australia Exposure Standards

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -

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

GESAMP/EHS Composite List - GESAMP Hazard Profiles

IMO IBC Code Chapter 17: Summary of minimum requirements

IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk

IMO Provisional Categorization of Liquid Substances - List 3: (Trade-named) mixtures containing at least 99% by weight of components already assessed by IMO, presenting safety hazards

International Air Transport Association (IATA) Dangerous Goods Regulations

International Maritime Dangerous Goods Requirements (IMDG Code)

United Nations Recommendations on the Transport of Dangerous Goods Model Regulations

## SODIUM METASILICATE, PENTAHYDRATE IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Dangerous Goods Code (ADG Code) - Dangerous Goods List Australia Dangerous Goods Code (ADG Code) - List of Emergency Action Codes Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Inventory of Chemical Substances (AICS)

International Air Transport Association (IATA) Dangerous Goods Regulations International Maritime Dangerous Goods Requirements (IMDG Code) United Nations Recommendations on the Transport of Dangerous Goods Model Regulations

## ETHYLENE GLYCOL MONOBUTYL ETHER IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Dangerous Goods Code (ADG Code) - Dangerous Goods List

Australia Dangerous Goods Code (ADG Code) - List of Emergency Action Codes Australia Exposure Standards

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -Part 2, Section Seven - Appendix I

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -Schedule 6

GESAMP/EHS Composite List - GESAMP Hazard Profiles IMO IBC Code Chapter 17: Summary of minimum requirements

IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Air Transport Association (IATA) Dangerous Goods Regulations International Maritime Dangerous Goods Requirements (IMDG Code)

United Nations Recommendations on the Transport of Dangerous Goods Model Regulations

## LAURYL ALCOHOL, ETHOXYLATED IS FOUND ON THE FOLLOWING REGULATORY LISTS

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Australia Dangerous Goods Code (ADG Code) - Dangerous Goods List

Australia Dangerous Goods Code (ADG Code) - List of Emergency Action Codes

Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -

Schedule 3

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -

International Air Transport Association (IATA) Dangerous Goods Regulations

International Maritime Dangerous Goods Requirements (IMDG Code)

United Nations Recommendations on the Transport of Dangerous Goods Model

#### HYDROCARBON PROPELLANT IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Dangerous Goods Code (ADG Code) - Dangerous Goods List

Australia Dangerous Goods Code (ADG Code) - List of Emergency Action Codes

Australia Dangerous Goods Code (ADG Code) - Packing Instruction - Liquefied and

**Dissolved Gases** 

Australia Exposure Standards

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -Schedule 5

Chemical Footprint Project - Chemicals of High Concern List

International Air Transport Association (IATA) Dangerous Goods Regulations

International Maritime Dangerous Goods Requirements (IMDG Code)

United Nations Recommendations on the Transport of Dangerous Goods Model

## **National Inventory Status**

National Inventory	Status
Australia - AICS	Yes
Canada - DSL	Yes
Canada - NDSL	No (sodium metasilicate, pentahydrate; lauryl alcohol, ethoxylated; ethanolamine; triethanolamine; hydrocarbon propellant; ethylene glycol monobutyl ether)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - ARIPS	Yes
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

## **SECTION 16 OTHER INFORMATION**

Revision Date	14/02/2020
Initial Date	13/02/2020

## **SDS Version Summary**

Version	Issue Date	Sections Updated
2.1.1.1	13/02/2020	Fire Fighter (fire/explosion hazard)
3.1.1.1	14/02/2020	Toxicity and Irritation (Toxicity Figure)

## 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

OSF: Odour Safety Factor

TLV: Threshold Limit Value

NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level

LOD: Limit Of Detection OTV: Odour Threshold Value **BCF**: BioConcentration Factors

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BEI: Biological Exposure Index

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