Formula Marketing Limited

Version No: **1.3** Safety Data Sheet according to HSNO Regulations Chemwatch Hazard Alert Code: 4

Issue Date: **17/06/2019** Print Date: **17/06/2019** S.GHS.NZL.EN

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

Product Identifier

Product name	XTREME FX CHROME AEROSOL	
Synonyms	NA	
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	Application is by spray atomisation from a hand held aerosol pack
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Details of the supplier of the safety data sheet

Registered company name	Formula Marketing Limited	
Address	23 Ross Reid place, East Tamaki, Auckland 2013, New Zealand	
Telephone)9 273 3600	
Fax	09 271 2304	
Website	www.formula.co.nz	
Email	sales@formula.co.nz	

Emergency telephone number

Association / Organisation	Formula Marketing Limited	
Emergency telephone numbers	0800 764 766	
Other emergency telephone numbers	Not Available	

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Classified as Dangerous Goods for transport purposes.

CHEMWATCH HAZARD RATINGS

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

Classification ^[1]	Eye Irritation Category 2A, Specific target organ toxicity - single exposure Category 3 (narcotic effects), Aerosols Category 1, Specific target organ toxicity - repeated exposure Category 2, Acute Toxicity (Inhalation) Category 5, Skin Corrosion/Irritation Category 2
Legend:	1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI
Determined by Chemwatch using GHS/HSNO criteria	2.1.2A, 6.1E (inhalation), 6.3A, 6.4A, 6.9B, 6.9 (narcotic)

Label elements

Hazard pictogram(s)		
SIGNAL WORD	DANGER	
Hazard statement(s)		
H319	Causes serious eye irritation.	
H336	May cause drowsiness or dizziness.	
H222	Extremely flammable aerosol.	

H373	May cause damage to organs through prolonged or repeated exposure.	
H333	May be harmful if inhaled.	
H315	Causes skin irritation.	
Precautionary statement(s) Prevention		
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.	
P211	Do not spray on an open flame or other ignition source.	
P251	Do not pierce or burn, even after use.	
P260	Do not breathe dust/fume/gas/mist/vapours/spray.	

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.	
P304+P312	P304+P312 IF INHALED: Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.	
P337+P313	P337+P313 If eye irritation persists: Get medical advice/attention.	
P302+P352 IF ON SKIN: Wash with plenty of water and soap.		

Precautionary statement(s) Storage

P405	Store locked up.	
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.	
P403+P233	P403+P233 Store in a well-ventilated place. Keep container tightly closed.	
P410+P412 P403+P233	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Keep container tightly closed.	

Precautionary statement(s) Disposal

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

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
79-20-9*	25-45	methyl acetate
123-86-4*	15-25	n-butyl acetate
74-98-6*	15-25	propane
106-97-8.*	5-15	butane
78-93-3*	1-10	methyl ethyl ketone
141-78-6*	1-5	ethyl acetate
108-65-6	1-5	propylene glycol monomethyl ether acetate, alpha-isomer
111-76-2*	1-5	ethylene glycol monobutyl ether

SECTION 4 FIRST AID MEASURES

Description of first aid 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. Generally not applicable.
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. Generally not applicable.
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. Generally not applicable.
Ingestion	Not considered a normal route of entry. Generally not applicable.

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	 Alert Fire Brigade and tell them location and nature of hazard. May be violently or explosively reactive. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. Slight hazard when exposed to heat, flame and oxidisers. 				
Fire/Explosion Hazard	 Liquid and vapour are highly flammable. Severe fire hazard when exposed to heat or flame. Vapour forms an explosive mixture with air. Severe explosion hazard, in the form of vapour, when exposed to flame or spark. Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions. Articles and manufactured articles may constitute a fire hazard where polymers form their outer layers or where combustible packaging remains in place. Certain substances, found throughout their construction, may degrade or become volatile when heated to high temperatures. This may create a secondary hazard. 				

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 breathing vapours and contact with skin and eyes. Wear protective clothing, impervious gloves and safety glasses. Shut off all possible sources of ignition and increase ventilation.
Major Spills	 Clear area of all unprotected personnel and move upwind. Alert Emergency Authority and advise them of the location and nature of hazard. May be violently or explosively reactive. Wear full body clothing with breathing apparatus. Remove leaking cylinders to a safe place. Fit vent pipes. Release pressure under safe, controlled conditions Burn issuing gas at vent pipes. DO NOT exert excessive pressure on valve; DO NOT attempt to operate damaged valve. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. May be violently or explosively reactive. Wear breathing apparatus us plus protective gloves. Clean up all spills immediately. Wear protective clothing, safety glasses, dust mask, gloves. Secure load if safe to do so. Bundle/collect recoverable product.

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling	3
Safe handling	 Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps.
Other information	 Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can Store in original containers in approved flammable liquid storage area. DO NOT store in pits, depressions, basements or areas where vapours may be trapped. No smoking, naked lights, heat or ignition sources. Keep containers securely sealed. Store away from incompatible materials.

Conditions for safe storage, including any incompatibilities

Suitable container	Generally packaging as originally supplied with the article or manufactured item is sufficient to protect against physical hazards. If repackaging is required ensure the article is intact and does not show signs of wear. As far as is practicably possible, reuse the original packaging or something providing a similar level of protection to both the article and the handler.

	Check that containers are clearly labelled.
Storage incompatibility	 Propylene glycol monomethyl ether acetate: may polymerise unless properly inhibited due to peroxide formation should be isolated from UV light, high temperatures, free radical initiators may react with strong oxidisers to produce fire and/ or explosion reacts violently with with sodium peroxide, uranium fluoride is incompatible with sulfuric acid, nitric acid, caustics, aliphatic amines, isocyanates, boranes Compressed gases may contain a large amount of kinetic energy over and above that potentially available from the energy of reaction produced by the gas in chemical reaction with other substances Avoid reaction with oxidising agents

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

EMERGENCY LIMITS

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	τwΔ	STEL	Peak	Notes
Source	Ingredient	Material Harrie	1004	JILL	reak	Notes
New Zealand Workplace Exposure Standards (WES)	methyl acetate	Methyl acetate	200 ppm / 606 mg/m3	757 mg/m3 / 250 ppm	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	n-butyl acetate	n-Butyl acetate	150 ppm / 713 mg/m3	950 mg/m3 / 200 ppm	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	propane	Propane	Not Available	Not Available	Not Available	Simple asphyxiant - may present an explosion hazard
New Zealand Workplace Exposure Standards (WES)	butane	Butane	800 ppm / 1900 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	methyl ethyl ketone	MEK (Methyl ethyl ketone, 2-Butanone)	150 ppm / 445 mg/m3	890 mg/m3 / 300 ppm	Not Available	(bio) - Exposure can also be estimated by biological monitoring.
New Zealand Workplace Exposure Standards (WES)	ethyl acetate	Ethyl acetate	200 ppm / 720 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	ethylene glycol monobutyl ether	2-Butoxyethanol (Butyl glycol ether)	25 ppm / 121 mg/m3	Not Available	Not Available	(skin) - Skin absorption

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3	
methyl acetate	Methyl acetate			1,700 ppm	10000 ppm
n-butyl acetate	Butyl acetate, n-		Not Available	Not Available	Not Available
propane	Propane		Not Available	Not Available	Not Available
butane	Butane		Not Available	Not Available	Not Available
methyl ethyl ketone	Butanone, 2-; (Methyl ethyl ketone; MEK)		Not Available	Not Available	Not Available
ethyl acetate	Ethyl acetate		1,200 ppm	1,700 ppm	10000 ppm
propylene glycol monomethyl ether acetate, alpha-isomer	Propylene glycol monomethyl ether acetate, alpha-isomer; (1-Methoxypropyl-2	Not Available	Not Available	Not Available	
ethylene glycol monobutyl ether	Butoxyethanol, 2-; (Glycol ether EB)	60 ppm	120 ppm	700 ppm	
Ingredient	Original IDLH				
methyl acetate	3,100 ppm				
n-butyl acetate	1,700 ppm				
propane	2,100 ppm				
butane	Not Available				
methyl ethyl ketone	3,000 ppm				
ethyl acetate	2,000 ppm	Not Available			
propylene glycol monomethyl ether acetate, alpha-isomer	Not Available	Not Available			

Exposure controls

ethylene glycol monobutyl ether

700 ppm

Appropriate engineering controls	Articles or manufactured items, in their original condition, generally don't require engineering controls during handling or in normal use. Exceptions may arise following extensive use and subsequent wear, during recycling or disposal operations where substances, found in the article, may be released to the environment. 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.
Personal protection	

Not Available

Eye and face protection	 Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. Close fitting gas tight goggles DO NOT wear contact lenses. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses rot restrictions on use, should be created for each workplace or task. Close fitting gas tight goggles DO NOT wear contact lenses. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. No special equipment required due to the physical form of the product.
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. No special equipment required due to the physical form of the product.
Body protection	See Other protection below
Other protection	 The clothing worn by process operators insulated from earth may develop static charges far higher (up to 100 times) than the minimum ignition energies for various flammable gas-air mixtures. This holds true for a wide range of clothing materials including cotton. Avoid dangerous levels of charge by ensuring a low resistivity of the surface material worn outermost. BRETHERICK: Handbook of Reactive Chemical Hazards. No special equipment needed when handling small quantities. OTHERWISE: Veralls. Skin cleansing cream. Eyewash unit. No special equipment required due to the physical form of the product.

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:

XTREME FX CHROME AEROSOL

Material	CPI
PE/EVAL/PE	A
BUTYL	С
BUTYL/NEOPRENE	С
CPE	С
HYPALON	С
NAT+NEOPR+NITRILE	С
NATURAL RUBBER	С
NATURAL+NEOPRENE	С
NEOPRENE	С
NEOPRENE/NATURAL	С
NITRILE	С
NITRILE+PVC	С
PE	С
PVA	С
PVC	С
SARANEX-23	С
SARANEX-23 2-PLY	С
TEFLON	С
VITON/BUTYL	С
VITON/CHLOROBUTYL	С
VITON/NEOPRENE	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

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

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.

Information on basic physical and chemical properties

Appearance	Aerosol		
Physical state	article	Relative density (Water = 1)	0.77-0.85
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Product is not self igniting
pH (as supplied)	Not Applicable	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	-44	Molecular weight (g/mol)	Not Available
Flash point (°C)	-19	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	HIGHLY FLAMMABLE.	Oxidising properties	Not Available
Upper Explosive Limit (%)	16	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.5	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	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

Reactivity	See section 7
Chemical stability	 Elevated temperatures. Presence of open flame. Product is considered stable. Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation of the material, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo. Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual. Inhalation of toxic gases may cause: Central Nervous System effects including depression, headache, confusion, dizziness, stupor, coma and seizures; respiratory: acute lung swellings, shortness of breath, wheezing, rapid breathing, other symptoms and respiratory arrest; heart: collapse, irregular heartbeats and cardiac arrest; heart: collapse, irregular heartbeats and cardiac arrest; hearts showed no toxic effects from inhaling PGMEA except at very high concentrations. A concentration of 1000 parts per million (0.1%) caused no effects. Material is highly volatile and may quickly form a concentrated atmosphere in confined or unventilated areas. The vapour may displace and replace air in breathing zone, acting as a simple asphyxiant. This may happen with little warning of overexposure. The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation. 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 Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Spray mist may produce discomfort Animal testing showed repeated application of commercial grade PGMEA to skin caused slight redness and very mild exfoliation. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	This material can cause eye irritation and damage in some persons. Not considered to be a risk because of the extreme volatility of the gas. Undiluted propylene glycol monomethyl ether acetate (PGMEA) causes moderate discomfort, slight redness of the conjunctiva and slight injury to the comea in animal testing.
Chronic	Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems. Main route of exposure to the gas in the workplace is by inhalation.

XTREME FX CHROME	TOXICITY	IRRITATION
AEROSOL	Not Available	Not Available
	TOVICITY	
		IKKITATION
methyl acetate	Inhalation (Human) I CLo: 15000 mg/m3 ^{r-3}	
	Inhalation (Rat)LCLo: 32000 ppm/4h ⁱ⁻¹	Skin (rabbit): 20 mg/24h - mild
		Skin (rabbit): 500 mg/24n - mild
	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 3200 mg/kg* ^[2]	Eye (human): 300 mg
	Inhalation (Human) TCLo: 200 ppm ^[2]	Eye (rabbit): 20 mg (open)-SEVERE
	Inhalation (Human) TCLo: 200 ppm/4h ^[2]	Eye (rabbit): 20 mg/24h - moderate
	Inhalation (rat) LC50: 2000 ppm/4H ^[2]	Eve: no adverse effect observed (not irritating) ^[1]
	Inhalation (rat) I C50: 390 ppm/4h ^[2]	Skin (rabbit): 500 mg/24h-moderate
n-butyl acetate	Intraperitopeal (Guinea pia) I D: 1500 mg/kg ^[2]	Skin: no adverse effect observed (not irritation) ^[1]
	Oral (guinea pig) LD50: 4700 mg/kg ¹⁻¹	
	Oral (Rabbit) LD50: 3200 mg/kg ¹²	
	Oral (rat) LD50: 10768 mg/kg ^[2]	
	Oral (rat) LD50: 13100 mg/kg ^[2]	
	TOXICITY	IRRITATION
propane	Inhalation (rat) LC50: >49942.95 mg/l/15M ^[2]	Not Available
butane	TOXICITY	IRRITATION
	Inhalation (rat) LC50: 658000 mg/m3/4h ^[2]	Not Available
	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 20000 mg/kg ^[2]	Eye (human): 350 ppm -irritant
	Dermal (rabbit) LD50: 6480 mg/kg ^[2]	Eye (rabbit): 80 mg - irritant
	Inhalation (Human) TCLo: 100 ppm/5 m ^[2]	Skin (rabbit): 402 mg/24 hr - mild
methyl ethyl ketone	Inhalation (man) TCLo: 10 mg/m3/6 hr ^[2]	Skin (rabbit):13.78mg/24 hr open
	Inhalation (Rat) C50: 50100 mo/m3/8 hr ^[2]	
	Inhalation (Rat) D50: 23500 mc/m3/8 hr ^[2]	
	Oral (rat) D50: 2737 mg/kg ^[2]	
		1
	TOXICITY	IRRITATION
	Inhalation (Human) TCLo: 400 ppm ^[2]	Eye (human): 400 ppm
	Inhalation (Human) TCLo: 400 ppm/4h ^[2]	Eye: no adverse effect observed (not irritating) ^[1]
	Inhalation (rat) LC50: 1600 ppm/8h ^[2]	Skin: no adverse effect observed (not irritating) ^[1]
ethyl acetate	Intraperitoneal (Mouse) LD50: 709 mg/kg ^[2]	
	Oral (guinea pig) LD50: 5500 mg/kg ^[2]	
	Oral (mouse) LD50: 4100 mg/kg ^[2]	
	Oral (Rabbit) LD50: 4935 mg/kg ^[2]	
	Oral (rat) LD50: 5620 mg/kg ^[2]	
	dormal (rat) DE0: > 2000 mg/kg ^[1]	Ever policytro effect abconved (act initiation) ^[1]
propylene glycol monomethyl ether acetate, alpha-isomer		Eye: no adverse effect observed (not initiating)
		Skin. To adverse enect observed (not initiating) ²
	Oral (rat) LD50: 5155 mg/kg ⁺⁺	
	TOXICITY	IRRITATION
	dermal (guinea pig) LD50: 210 mg/kg ** ^[2]	Eye (rabbit): 100 mg SEVERE
ethylene glycol monobutyl ether	Dermal (rabbit) LD50: 220 mg/kg ^[2]	Eye (rabbit): 100 mg/24h-moderate
	Inhalation (Human) TCLo: 100 ppm ^[2]	Eye: adverse effect observed (irritating) ^[1]

	Inhalation (Human) TCLo: 195 ppm/8h ^[2]	Skin (rabbit): 500 mg, open; mild
	Inhalation (rat) LC50: 2210 mg/m3 ** ^[2]	Skin: adverse effect observed (irritating) ^[1]
	Inhalation (rat) LC50: 450 ppm * ^[2]	Skin: no adverse effect observed (not irritating) ^[1]
	Oral (rat) LD50: 300 mg/kg ** ^[2]	
	Oral (rat) LD50: 470 mg/kg ^[2]	1 1 1 1
Legend:	 Value obtained from Europe ECHA Registered Substances - Acute toxicity data extracted from RTECS - Register of Toxic Effect of chemical Substance. 	2.* Value obtained from manufacturer's SDS. Unless otherwise specified s
	Free and the state	

methyl acetate	Acute toxicity: Methyl acetate is a water-soluble substance with high volatility. In animal testing, the substance has narcotic properties at high concentration; this is soon reversible after exposure ends. Methyl acetate is absorbed via the lungs. After absorption, it is broken down to methanol and acetic acid. The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.			
propane	No significant acute toxicological data identified in literature search.			
methyl ethyl ketone	Methyl ethyl ketone is considered to have a low order of toxicity; however, methyl ethyl ketone is often used in combination with other solvents and the mixture may have greater toxicity than either solvent alone. Combinations of n-hexane with methyl ethyl ketone, and also methyl n-butyl ketone with methyl ethyl ketone may result in an increased in peripheral neuropathy, a progressive disorder of the nerves of the extremities. Combinations with chloroform also show an increase in toxicity.			
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE, ALPHA-ISOMER	A BASF report (in ECETOC) showed that inhalation exp but exposure to 145 ppm and 36 ppm had no adverse effe 90% is alpha isomer. Hazard appears low but emphasize	A BASF report (in ECETOC) showed that inhalation exposure to 545 ppm PGMEA (beta isomer) was associated with a teratogenic response in rabbits; but exposure to 145 ppm and 36 ppm had no adverse effects. The beta isomer of PGMEA comprises only 10% of the commercial material, the remaining 90% is alpha isomer. Hazard appears low but emphasizes the need for care in handling this chemical. [I.C.I] *Shin-Etsu SDS		
ethylene glycol monobutyl ether	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. 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. For ethylene glycol: Ethylene glycol: 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 glycoal. 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			
XTREME FX CHROME AEROSOL & PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE, ALPHA- ISOMER	For propylene glycol ethers (PGEs): Typical propylene glycol ethers include propylene glycol n-butyl ether (PnB); dipropylene glycol n-butyl ether (DPnB); dipropylene glycol methyl ether acetate (DPMA) and tripropylene glycol methyl ether (TPM). Testing of a wide variety of propylene glycol hers has shown that propylene glycol-based ethers are less toxic than some ethers of the ethylene series. The common toxicities associated with the lower molecular weight homologues of the ethylene series, such as adverse effects on the reproductive organs, the developing embryo and foetus, blood or thymus gland, are not seen with the commercial-grade propylene glycol ethers. In the ethylene series, metabolism of the terminal hydroxyl group produces and alkoxyacetic acid. Animal testing shows that high concentrations (for example, 0.5%) are associated with birth defects but lower exposures have not been shown to cause adverse effects. The beta isomer of PGMEA comprises only 10% of the commercial material; the remaining 90% is alpha isomer. Hazard appears low, but emphasizes the need for care in bandling this chemical			
methyl acetate & n-butyl acetate & methyl ethyl ketone & ethylene glycol monobutyl ether	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.			
n-butyl acetate & ethylene glycol monobutyl ether	The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.			
methyl ethyl ketone & ethyl acetate	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.			
Acute Toxicitv	✓	Carcinogenicity	×	
Skin Irritation/Corrosion	 ✓ 	Reproductivity	×	
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✓	
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	√	
Mutagenicity	×	Aspiration Hazard	×	
Legend: X – Data either not available or does not fill the criteria for classificatio – Data available to make classification		er not available or does not fill the criteria for classification lable to make classification		

SECTION 12 ECOLOGICAL INFORMATION

XTREME FX CHROME AEROSOL	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available
	Available		i		
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	83.513mg/L	3
mothyl acotata	EC50	48	Crustacea	1-26.7mg/L	2
menty acetate	EC50	96	Algae or other aquatic plants	6.261mg/L	3
	EC100	48	Crustacea	1-448.2mg/L	2
	NOEC	96	Fish	=100mg/L	1
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	18mg/L	4
	EC50	48	Crustacea	=32mg/L	1
n-butyl acetate	EC50	96	Algae or other aquatic plants	1.675mg/L	3
	EC90	72	Algae or other aquatic plants	1-540.7mg/L	2
	NOEC	504	Crustacea	23.2mg/L	2
	ENDROINT		SDECIES	VALUE	SOURCE
nronano			Fish	10.307mg/l	3
piopane	EC50	96		7 71mg/L	2
	2000			, , , , , , , , , , , , , , , , , , ,	2
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
butane	LC50	96	Fish	5.862mg/L	3
	EC50	96	Algae or other aquatic plants	7.71mg/L	2
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	2-993mg/L	2
	EC50	48	Crustacea	5-91mg/L	2
methyl ethyl ketone	EC50	72	Algae or other aquatic plants	1-972mg/L	2
	EC0	96	Fish	1-848mg/L	2
	NOEC	96	Fish	1-170mg/L	2
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	54.314mg/L	3
	EC50	48	Crustacea	1-350mg/L	2
ethyl acetate	EC50	96	Algae or other aquatic plants	4.146mg/L	3
	BCF	24	Algae or other aquatic plants	0.05mg/L	4
	NOEC	48	Algae or other aquatic plants	>1-mg/L	2
	ENDPOINT	TEST DURATION (HP)	SPECIES		SOURCE
	LC50	96	Fish	100mg/l	1
propylene glycol monomethyl	EC50	48	Crustacea	373mg/L	2
ether acetate, alpha-isomer	EC50	72	Algae or other aquatic plants	>1-ma/l	2
	NOEC	96	Algae or other aquatic plants	>=1-mg/L	2
		ı I			
	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
	EC50	72	Algae or other aquatic plants	1-840mg/L	2
	NOEC	24	Crustacea	>1-mg/L	2
l eriend:	Extracted from 1	II ICLID Toxicity Data 2 Europe ECHA F	Registered Substances - Ecotoxicological Information - A	quatic Toxicity 3 EPIWIN	l Suite V3 12

Extracted from 1. IOCLID Toxicity Data 2. Europe ECHA Registered Substances - Econoxicological Information - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
methyl acetate	LOW	LOW
n-butyl acetate	LOW	LOW
propane	LOW	LOW

Version No: 1.3

XTREME FX CHROME AEROSOL

butane	LOW	LOW
methyl ethyl ketone	LOW (Half-life = 14 days)	LOW (Half-life = 26.75 days)
ethyl acetate	LOW (Half-life = 14 days)	LOW (Half-life = 14.71 days)
propylene glycol monomethyl ether acetate, alpha-isomer	LOW	LOW
ethylene glycol monobutyl ether	LOW (Half-life = 56 days)	LOW (Half-life = 1.37 days)

Bioaccumulative potential

Ingredient	Bioaccumulation
methyl acetate	LOW (LogKOW = 0.18)
n-butyl acetate	LOW (BCF = 14)
propane	LOW (LogKOW = 2.36)
butane	LOW (LogKOW = 2.89)
methyl ethyl ketone	LOW (LogKOW = 0.29)
ethyl acetate	HIGH (BCF = 3300)
propylene glycol monomethyl ether acetate, alpha-isomer	LOW (LogKOW = 0.56)
ethylene glycol monobutyl ether	LOW (BCF = 2.51)

Mobility in soil

Ingredient	Mobility
methyl acetate	MEDIUM (KOC = 3.324)
n-butyl acetate	LOW (KOC = 20.86)
propane	LOW (KOC = 23.74)
butane	LOW (KOC = 43.79)
methyl ethyl ketone	MEDIUM (KOC = 3.827)
ethyl acetate	LOW (KOC = 6.131)
propylene glycol monomethyl ether acetate, alpha-isomer	HIGH (KOC = 1.838)
ethylene glycol monobutyl ether	HIGH (KOC = 1)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods		
Product / Packaging disposal	Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Management Authority for 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.	

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

Disposal Requirements

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled.

The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous.

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (UN)

UN number	1950
UN proper shipping name	AEROSOLS

Transport hazard class(es)	Class 2.1 Subrisk Not Applicable
Packing group	Not Applicable
Environmental hazard	Not Applicable
Special precautions for user	Special provisions63; 190; 277; 327; 344; 381Limited quantity1000ml

Air transport (ICAO-IATA / DGR)

UN number	1950			
UN proper shipping name	Aerosols, flammable			
Transport hazard class(es)	ICAO/IATA Class ICAO / IATA Subrisk ERG Code	2.1 Not Applicable 10L		
Packing group	Not Applicable			
Environmental hazard	Not Applicable			
Special precautions for user	Special provisions Cargo Only Packing Ir Cargo Only Maximum Passenger and Cargo Passenger and Cargo Passenger and Cargo	nstructions Qty / Pack Packing Instructions Maximum Qty / Pack Limited Quantity Packing Instructions	A145 A167 A802 203 150 kg 203 75 kg 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 2.1 IMDG Subrisk No	1 ot Applicable		
Packing group	Not Applicable			
Environmental hazard	Not Applicable			
Special precautions for user	EMS Number Special provisions Limited Quantities	F-D, S-U 63 190 277 327 344 381 959 1000ml		

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

This substance is to be managed using the conditions specified in an applicable Group Standard

HSR Number	Group Standard	
HSR002515	Aerosols (Flammable) Group Standard 2017	
METHYL ACETATE(79-20-9*) IS FO	OUND ON THE FOLLOWING REGULATORY LISTS	
GESAMP/EHS Composite List - GESAMP Hazard Profiles		New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of
IMO IBC Code Chapter 17: Summary of minimum requirements		Chemicals
IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk		New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of
IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances		Chemicals - Classification Data
International Air Transport Association (IATA) Dangerous Goods Regulations		New Zealand Inventory of Chemicals (NZIoC)
International Maritime Dangerous Goods Requirements (IMDG Code)		New Zealand Workplace Exposure Standards (WES)
		United Nations Recommendations on the Transport of Dangerous Goods Model Regulations

N-BUTYL ACETATE(123-86-4*) IS FOUND ON THE FOLLOWING REGULATORY LISTS

GESAMP/EHS Composite List - GESAMP Hazard Profiles New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of IMO IBC Code Chapter 17: Summary of minimum requirements Chemicals New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk Chemicals - Classification Data International Air Transport Association (IATA) Dangerous Goods Regulations New Zealand Inventory of Chemicals (NZIoC) International Maritime Dangerous Goods Requirements (IMDG Code) New Zealand Workplace Exposure Standards (WES) United Nations Recommendations on the Transport of Dangerous Goods Model Regulations PROPANE(74-98-6*) IS FOUND ON THE FOLLOWING REGULATORY LISTS International Air Transport Association (IATA) Dangerous Goods Regulations New Zealand Inventory of Chemicals (NZIoC) International Maritime Dangerous Goods Requirements (IMDG Code) New Zealand Workplace Exposure Standards (WES) New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of United Nations Recommendations on the Transport of Dangerous Goods Model Regulations Chemicals New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data BUTANE(106-97-8.*) IS FOUND ON THE FOLLOWING REGULATORY LISTS International Air Transport Association (IATA) Dangerous Goods Regulations New Zealand Inventory of Chemicals (NZIoC) International Maritime Dangerous Goods Requirements (IMDG Code) New Zealand Workplace Exposure Standards (WES) New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of United Nations Recommendations on the Transport of Dangerous Goods Model Regulations Chemicals New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data METHYL ETHYL KETONE(78-93-3*) IS FOUND ON THE FOLLOWING REGULATORY LISTS New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of GESAMP/EHS Composite List - GESAMP Hazard Profiles Chemicals IMO IBC Code Chapter 17: Summary of minimum requirements New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk Chemicals - Classification Data International Air Transport Association (IATA) Dangerous Goods Regulations New Zealand Inventory of Chemicals (NZIoC) International Maritime Dangerous Goods Requirements (IMDG Code) New Zealand Workplace Exposure Standards (WES) United Nations Recommendations on the Transport of Dangerous Goods Model Regulations ETHYL ACETATE(141-78-6*) IS FOUND ON THE FOLLOWING REGULATORY LISTS GESAMP/EHS Composite List - GESAMP Hazard Profiles New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of IMO IBC Code Chapter 17: Summary of minimum requirements Chemicals New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk Chemicals - Classification Data International Air Transport Association (IATA) Dangerous Goods Regulations New Zealand Inventory of Chemicals (NZIoC) International Maritime Dangerous Goods Requirements (IMDG Code) New Zealand Workplace Exposure Standards (WES) United Nations Recommendations on the Transport of Dangerous Goods Model Regulations PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE, ALPHA-ISOMER(108-65-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS GESAMP/EHS Composite List - GESAMP Hazard Profiles New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of IMO IBC Code Chapter 17: Summary of minimum requirements Chemicals New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk Chemicals - Classification Data International Air Transport Association (IATA) Dangerous Goods Regulations New Zealand Inventory of Chemicals (NZIoC) International Maritime Dangerous Goods Requirements (IMDG Code) United Nations Recommendations on the Transport of Dangerous Goods Model Regulations ETHYLENE GLYCOL MONOBUTYL ETHER(111-76-2*) IS FOUND ON THE FOLLOWING REGULATORY LISTS GESAMP/EHS Composite List - GESAMP Hazard Profiles New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of IMO IBC Code Chapter 17: Summary of minimum requirements Chemicals IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data International Agency for Research on Cancer (IARC) - Agents Classified by the IARC New Zealand Inventory of Chemicals (NZIoC) Monographs New Zealand Workplace Exposure Standards (WES) International Air Transport Association (IATA) Dangerous Goods Regulations United Nations Recommendations on the Transport of Dangerous Goods Model Regulations International Maritime Dangerous Goods Requirements (IMDG Code)

Hazardous Substance Location

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Quantity beyond which controls apply for closed containers	Quantity beyond which controls apply when use occurring in open containers
2.1.2A	3 000 L (aggregate water capacity)	3 000 L (aggregate water capacity)

Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Class of substance	Quantities
2.1.2A	3 000 L aggregate water capacity

Refer Group Standards for further information

Tracking Requirements

Not Applicable

National Inventory Status

National Inventory	Status
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Australia - AICS	Yes
Canada - DSL	Yes
Canada - NDSL	No (propylene glycol monomethyl ether acetate, alpha-isomer; ethylene glycol monobutyl ether; methyl acetate; butane; methyl ethyl ketone; ethyl acetate; n-butyl acetate; propane)
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
Thailand - TECI	Yes
Legend:	Yes = All declared ingredients are on the inventory No = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Revision Date	17/06/2019
Initial Date	17/06/2019

SDS Version Summary

Version	Issue Date	Sections Updated
0.3.1.1.1	17/06/2019	Ingredients, Physical Properties

Other information

Ingredients with multiple cas numbers

Name	CAS No
propylene glycol monomethyl ether acetate, alpha-isomer	108-65-6, 84540-57-8, 142300-82-1

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_o IDLH: Immediately Dangerous to Life or Health Concentrations OSF: Odour Safety Factor NOAEL : No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index

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