Rocol Flaw Finder Developer Spray ITW Polymers & Fluids (NZ)

Chemwatch: 106695 Version No: 13.1

Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017

Chemwatch Hazard Alert Code: 3

Issue Date: **10/03/2023**Print Date: **12/11/2023**S.GHS.NZL.EN

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

Product Identifier

Product name	Rocol Flaw Finder Developer Spray
Chemical Name	Not Applicable
Synonyms	Not Available
Proper shipping name	AEROSOLS
Chemical formula	Not Applicable
Other means of identification	Not Available

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

Relevant identified uses	Developer.
Relevant identified uses	Application is by spray atomisation from a hand held aerosol pack

Details of the manufacturer or supplier of the safety data sheet

Registered company name	ITW Polymers & Fluids (NZ)	ITW POLYMERS & FLUIDS
Address	Unit 2/38 Trugood Drive, East Tamaki, Auckland 2013 New Zealand	100 Hassall Street, Wetherill Park NSW 2164 Australia
Telephone	0800 476 265	+61 2 9757 8800
Fax	+64 9 273 6489	+61 2 9757 3855
Website	www.itwpf.co.nz	www.itwpf.com.au
Email	Not Available	Not Available

Emergency telephone number

Association / Organisation	ITW Polymers & Fluids (NZ)	CHEMWATCH EMERGENCY RESPONSE (24/7)	CHEMWATCH EMERGENCY RESPONSE (24/7)
Emergency telephone numbers	0800 2436 2255	+61 1800 951 288	+64 800 700 112
Other emergency telephone numbers	Not Available	+61 3 9573 3188	+61 3 9573 3188

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

SECTION 2 Hazards identification

Classification of the substance or mixture

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

Classification [1]	Aerosols Category 1, Serious Eye Damage/Eye Irritation Category 2, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3	
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, 6.4A, 6.9B (narcotic effects)	

Chemwatch: 106695 Version No: 13.1

Rocol Flaw Finder Developer Spray

Issue Date: **10/03/2023**Print Date: **12/11/2023**

Label elements

Hazard pictogram(s)





Signal word

Danger

Hazard statement(s)

H222+H229	Extremely flammable aerosol. Pressurized container: may burst if heated.	
H319	Causes serious eye irritation.	
H336	May cause drowsiness or dizziness.	

Precautionary statement(s) General

P101	If medical advice is needed, have product container or label at hand.	
P102	Keep out of reach of children.	
P103	P103 Read carefully and follow all instructions.	

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.	
P271	71 Use only outdoors or in a well-ventilated area.	

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.	
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.	
P337+P313	If eye irritation persists: Get medical advice/attention.	
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.		

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 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.
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SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
67-64-1	30-50	acetone
7631-86-9	5-10	silica amorphous
68476-85-7.	30-50	hydrocarbon propellant
Legend:	gend: 1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOELVs available	

SECTION 4 First aid measures

Version No: 13.1

Rocol Flaw Finder Developer Spray

Issue Date: 10/03/2023 Print Date: 12/11/2023

Description of first aid measures

Eye Contact	If aerosols come in contact with the eyes: Immediately hold the eyelids apart and flush the eye 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. Seek medical attention without delay; if pain persists or recurs seek medical attention. 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	Not considered a normal route of entry. If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

For acute or short term repeated exposures to acetone:

- Symptoms of acetone exposure approximate ethanol intoxication.
- About 20% is expired by the lungs and the rest is metabolised. Alveolar air half-life is about 4 hours following two hour inhalation at levels near the Exposure Standard; in overdose, saturable metabolism and limited clearance, prolong the elimination half-life to 25-30 hours.
- * There are no known antidotes and treatment should involve the usual methods of decontamination followed by supportive care.

[Ellenhorn and Barceloux: Medical Toxicology]

Management:

Measurement of serum and urine acetone concentrations may be useful to monitor the severity of ingestion or inhalation.

Inhalation Management:

- Maintain a clear airway, give humidified oxygen and ventilate if necessary.
- If respiratory irritation occurs, assess respiratory function and, if necessary, perform chest X-rays to check for chemical pneumonitis.
- Consider the use of steroids to reduce the inflammatory response.
- ▶ Treat pulmonary oedema with PEEP or CPAP ventilation.

Dermal Management:

- Programme Remove any remaining contaminated clothing, place in double sealed, clear bags, label and store in secure area away from patients and staff.
- Irrigate with copious amounts of water.
- An emollient may be required.

Eye Management:

- Irrigate thoroughly with running water or saline for 15 minutes.
- ▶ Stain with fluorescein and refer to an ophthalmologist if there is any uptake of the stain.

Oral Management:

- ▶ No GASTRIC LAVAGE OR EMETIC
- ► Encourage oral fluids.

Systemic Management:

- Monitor blood glucose and arterial pH.
- Ventilate if respiratory depression occurs.
- ▶ If patient unconscious, monitor renal function.
- Symptomatic and supportive care.

The Chemical Incident Management Handbook:

Guy's and St. Thomas' Hospital Trust, 2000

BIOLOGICAL EXPOSURE INDEX

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

 Determinant
 Sampling Time
 Index
 Comments

 Acetone in urine
 End of shift
 50 mg/L
 NS

Chemwatch: **106695** Page **4** of **12**

Rocol Flaw Finder Developer Spray

Issue Date: **10/03/2023**Print Date: **12/11/2023**

SECTION 5 Firefighting measures

Extinguishing media

SMALL FIRE:

Version No: 13.1

▶ 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

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.
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. Combustion products include: carbon dioxide (CO2) silicon dioxide (SiO2) other pyrolysis products typical of burning organic material.

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 personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. May be violently or explosively reactive. Wear breathing apparatus plus protective gloves.

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

SECTION 7 Handling and storage

Precautions for safe handling

Precautions for safe handling				
Safe handling	 DO NOT allow clothing wet with material to stay in contact with skin 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	 Store below 38 deg. C. 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. 			

Rocol Flaw Finder Developer Spray

Page 5 of 12 Issue Date: 10/03/2023 Print Date: 12/11/2023

Aerosol dispenser. Suitable container ▶ Check that containers are clearly labelled. Avoid reaction with oxidising agents Storage incompatibility Avoid storage with reducing agents.

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	acetone	Acetone	500 ppm / 1185 mg/m3	2375 mg/m3 / 1000 ppm	Not Available	(bio) - Exposure can also be estimated by biological monitoring
New Zealand Workplace Exposure Standards (WES)	silica amorphous	Silica fume respirable dust	3 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	silica amorphous	Precipitated silica (Silica- Amorphous)	10 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	silica amorphous	Diatomaceous earth (not calcined)	10 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	silica amorphous	Silica-Amorphous, Precipitated silica	10 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	silica amorphous	Silica fused respirable dust	0.2 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	hydrocarbon propellant	LPG (Liquefied petroleum gas)	1000 ppm / 1800 mg/m3	Not Available	Not Available	Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
acetone	Not Available	Not Available	Not Available
silica amorphous	18 mg/m3	200 mg/m3	1,200 mg/m3
silica amorphous	18 mg/m3	100 mg/m3	630 mg/m3
silica amorphous	120 mg/m3	1,300 mg/m3	7,900 mg/m3
silica amorphous	45 mg/m3	500 mg/m3	3,000 mg/m3
silica amorphous	18 mg/m3	740 mg/m3	4,500 mg/m3
hydrocarbon propellant	65,000 ppm	2.30E+05 ppm	4.00E+05 ppm

Ingredient	Original IDLH	Revised IDLH
acetone	2,500 ppm	Not Available
silica amorphous	3,000 mg/m3	Not Available
hydrocarbon propellant	2,000 ppm	Not Available

Exposure controls

Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

Individual protection measures, such as personal protective equipment









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.

Chemwatch: 106695 Version No: 13.1

Rocol Flaw Finder Developer Spray

Issue Date: 10/03/2023 Print Date: 12/11/2023

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. 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.

Respiratory protection

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

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Non-viscous, white, highly flammable liquid with a characteristic odour; does not mix with water.		
Physical state	Liquid	Relative density (Water = 1)	0.68
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Applicable	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	<0	Viscosity (cSt)	Not Applicable
Initial boiling point and boiling range (°C)	<0	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	<-20	Taste	Not Available
Evaporation rate	Fast	Explosive properties	Not Available
Flammability	HIGHLY FLAMMABLE.	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	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

Rocol Flaw Finder Developer Spray

Issue Date: **10/03/2023**Print Date: **12/11/2023**

Hazardous decomposition products

Version No: 13.1

See section 5

SECTION 11 Toxicological information

Chronic

Information on toxicological effects

illiorillation on toxicologi	cal effects
Inhaled	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 high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination. Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal. 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. WARNING:Intentional misuse by concentrating/inhaling contents may be lethal. Effects of exposure to acetone by inhalation include central nervous system depression, light-headedness, unintelligible speech, inco-ordination, stupor, low blood pressure, fast heart rate, metabolic acidosis, high blood sugar and ketosis. Rarely, there may be convulsions and death of kidney tubules. Ketone vapours irritate the nose, throat and mucous membrane. High concentrations depress the central nervous system, causing headache, vertigo, poor concentration, sleep and failure of the heart and breathing.
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual. Not normally a hazard due to physical form of product. Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.
Skin Contact	Repeated exposure may cause skin cracking, flaking or drying following normal handling and use. Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. There is some evidence to suggest that the material may cause mild but significant inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering. 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.
Eye	There is evidence that material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Severe inflammation may be expected with pain.
01	Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term

Rocol Flaw Finder	TOXICITY	IRRITATION	
Developer Spray	Not Available	Not Available	
	TOXICITY	IRRITATION	
	Dermal (rabbit) LD50: 20000 mg/kg ^[2]	Eye (human): 500 ppm - irritant	
	Inhalation(Mouse) LC50; 44 mg/L4h ^[2]	Eye (rabbit): 20mg/24hr -moderate	
	Oral (Rat) LD50: 5800 mg/kg ^[2]	Eye (rabbit): 3.95 mg - SEVERE	
acetone		Eye: adverse effect observed (irritating) ^[1]	
		Skin (rabbit): 500 mg/24hr - mild	
		Skin (rabbit):395mg (open) - mild	
		Skin: no adverse effect observed (not irritating) ^[1]	
	TOXICITY	IRRITATION	
	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye (rabbit): non-irritating ** [Grace]	
silica amorphous	Inhalation(Rat) LC50: >0.09<0.84 mg/l4h ^[1]	Eye: no adverse effect observed (not irritating)[1]	
	Oral (Rat) LD50: >1000 mg/kg ^[1]	Skin (rabbit): non-irritating *	
		Skin: no adverse effect observed (not irritating) ^[1]	

and loss of strength. Exposure to acetone may enhance the liver toxicity of chlorinated solvents.

Workers exposed to acetone for long periods showed inflammation of the airways, stomach and small bowel, attacks of giddiness

Version No: 13.1

Rocol Flaw Finder Developer Spray

Issue Date: **10/03/2023**Print Date: **12/11/2023**

	TOXICITY	IRRITATION			
hydrocarbon propellant	Inhalation(Rat) LC50: 658 mg/l4h ^[2]	Not Available			
Legend:	Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances				
ACETONE	The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. For acetone: The acute toxicity of acetone is low. Acetone is not a skin irritant or sensitizer, but it removes fat from the skin, and it also irritates the eye. Animal testing shows acetone may cause anaemia. Studies in humans have shown that exposure to acetone at a level of 2375 mg/m3 does not negatively impact an individual's emotional regulation, behaviour, or learning ability.				
SILICA AMORPHOUS	Reports indicate high/prolonged exposures to amorphous silicas induced lung fibrosis in experimental animals; in some experiments these effects were reversible. [PATTYS] For silica amorphous: Derived No Adverse Effects Level (NOAEL) in the range of 1000 mg/kg/d. In humans, synthetic amorphous silica (SAS) is essentially non-toxic by mouth, skin or eyes, and by inhalation. Epidemiology studies show little evidence of adverse health effects due to SAS. Repeated exposure (without personal protection) may cause mechanical irritation of the eye and drying/cracking of the skin. When experimental animals inhale synthetic amorphous silica (SAS) dust, it dissolves in the lung fluid and is rapidly eliminated. If swallowed, the vast majority of SAS is excreted in the faeces and there is little accumulation in the body. The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.				
HYDROCARBON PROPELLANT	No significant acute toxicological data identified in literature search. inhalation of the gas				
Acute Toxicity	X	Carcinogenicity	x		
Skin Irritation/Corrosion	×	Reproductivity	×		

Legend:

🗶 – Data either not available or does not fill the criteria for classification

✓ – Data available to make classification

×

×

STOT - Single Exposure

STOT - Repeated Exposure

Aspiration Hazard

SECTION 12 Ecological information

Serious Eye

sensitisation Mutagenicity ×

×

Damage/Irritation
Respiratory or Skin

Toxicity

	Endpoint	Test Duration (hr)	;	Species		Value	Source
Rocol Flaw Finder Developer Spray	Not Available	Not Available	Not Available Not Available		Not Available	Not Available	
	Endpoint	Test Duration (hr)	Spe	ecies	Value		Source
	LC50	96h	Fish	1	3744.6	6-5000.7mg/L	4
	NOEC(ECx)	12h	Fish	1	0.001r	mg/L	4
acetone	EC50	72h	Algae or other aquatic plants 5600		5600-	10000mg/l	4
	EC50	48h	Crustacea 6098.		4mg/L	5	
	EC50	96h	Alga	ae or other aquatic plants	9.873-	27.684mg/l	4
	Endpoint	Test Duration (hr)	Sı	pecies	,	Value	Sourc
	EC50	72h	Al	gae or other aquatic plants		14.1mg/l	2
	EC50	48h	Crustacea >86mg/		>86mg/l	2	
silica amorphous	EC50	96h	Al	Algae or other aquatic plants 217.576		217.576mg/l	2
	LC50	96h	Fi	Fish 1033.016		1033.016mg/l	2
	EC0(ECx)	24h	Cı	rustacea		>=10000mg/l	1

Chemwatch: 106695 Version No: 13.1

Rocol Flaw Finder Developer Spray

Issue Date: 10/03/2023 Print Date: 12/11/2023

	Endpoint	Test Duration (hr)	Species	Value	Source
hl	EC50	96h	Algae or other aquatic plants	7.71mg/l	2
hydrocarbon propellant	LC50	96h	Fish	24.11mg/l	2
	EC50(ECx)	96h	Algae or other aquatic plants	7.71mg/l	2

Legend:

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

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
acetone	LOW (Half-life = 14 days)	MEDIUM (Half-life = 116.25 days)
silica amorphous	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
acetone	LOW (BCF = 0.69)
silica amorphous	LOW (LogKOW = 0.5294)

Mobility in soil

Ingredient	Mobility
acetone	HIGH (KOC = 1.981)
silica amorphous	LOW (KOC = 23.74)

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.

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)

14.1. UN number or ID number

1950

Page **10** of **12** Chemwatch: 106695 Version No: 13.1

Page 10 of 12	Issue Date: 10/03/2023
Rocol Flaw Finder Developer Spray	Print Date: 12/11/2023

14.2. UN proper shipping name	AEROSOLS			
14.3. Transport hazard class(es)	Class Subsidiary Hazard	2.1 Not Applicable		
14.4. Packing group	Not Applicable	Not Applicable		
14.5. Environmental hazard	Not Applicable	Not Applicable		
14.6. Special precautions for user	Special provisions 63; 190; 277; 327; 344; 381 Limited quantity 1000ml			

Air transport (ICAO-IATA / DGR)

14.1. UN number	1950			
4.2. UN proper shipping name	Aerosols, flammable			
	ICAO/IATA Class	2.1		
I.3. Transport hazard class(es)	ICAO / IATA Subsidiary Hazard	Not Applicable		
Ciass(es)	ERG Code	10L		
l.4. Packing group	Not Applicable	Not Applicable		
4.5. Environmental hazard	Not Applicable			
	Special provisions		A145 A167 A802	
	Cargo Only Packing Instructions		203	
	Cargo Only Maximum Qty / Pack		150 kg	
4.6. Special precautions for user	Passenger and Cargo Packing In	Passenger and Cargo Packing Instructions		
101 4301	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)

14.1. UN number	1950			
14.2. UN proper shipping name	AEROSOLS	AEROSOLS		
14.3. Transport hazard class(es)	IMDG Class IMDG Subsidiary Ha	azard	2.1 Not Applicable	
14.4. Packing group	Not Applicable			
14.5 Environmental hazard	Not Applicable			
14.6. Special precautions for user	EMS Number F-D, S-U Special provisions 63 190 277 327 344 381 959 Limited Quantities 1000 ml		90 277 327 344 381 959	

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

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

Product name	Group
acetone	Not Available
silica amorphous	Not Available
hydrocarbon propellant	Not Available

Chemwatch: 106695 Version No: 13.1

Rocol Flaw Finder Developer Spray

Issue Date: 10/03/2023
Print Date: 12/11/2023

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
acetone	Not Available
silica amorphous	Not Available
hydrocarbon propellant	Not Available

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 2020	

Please refer to Section 8 of the SDS for any applicable tolerable exposure limit or Section 12 for environmental exposure limit.

acetone is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

silica amorphous is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

hydrocarbon propellant is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

 $New\ Zealand\ Hazardous\ Substances\ and\ New\ Organisms\ (HSNO)\ Act\ -\ Classification\ of\ Chemicals\ -\ Classification\ Data$

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

Hazardous Substance Location

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

Hazard Class	Quantity (Closed Containers)	Quantity (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
Not Applicable	Not Applicable

Refer Group Standards for further information

Maximum quantities of certain hazardous substances permitted on passenger service vehicles

Subject to Regulation 13.14 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Gas (aggregate water capacity in mL)	Liquid (L)	Solid (kg)	Maximum quantity per package for each classification
2.1.2A				1L (aggregate water capacity)

Chemwatch: 106695 Page 12 of 12 Issue Date: 10/03/2023 Version No: 13.1

Rocol Flaw Finder Developer Spray

Print Date: 12/11/2023

Tracking Requirements

Not Applicable

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (acetone; hydrocarbon propellant)
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 - FBEPH	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. These ingredients may be exempt or will require registration.

SECTION 16 Other information

Revision Date	10/03/2023
Initial Date	16/06/2006

SDS Version Summary

Version	Date of Update	Sections Updated	
12.1	23/12/2022	Classification review due to GHS Revision change.	
13.1	10/03/2023	Classification change due to full database hazard calculation/update.	

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.

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TEL (+61 3) 9572 4700.

Rocol Flaw Finder VW Spray No.2 ITW Polymers & Fluids (NZ)

Chemwatch: 25118 Version No: 9.1

Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017

Chemwatch Hazard Alert Code: 4

Issue Date: 23/12/2022 Print Date: 12/11/2023 S.GHS.NZL.EN

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

Product Identifier

Product name	Rocol Flaw Finder VW Spray No.2
Chemical Name	Not Applicable
Synonyms	Not Available
Proper shipping name	AEROSOLS
Chemical formula	Not Applicable
Other means of identification	Not Available

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

	Crack detection in metal. Application is by spray atomisation from a hand held aerosol pack Use according to manufacturer's directions.
--	--

Details of the manufacturer or supplier of the safety data sheet

Registered company name	ITW Polymers & Fluids (NZ)	ITW POLYMERS & FLUIDS	
Address	Unit 2/38 Trugood Drive, East Tamaki, Auckland 2013 New Zealand	100 Hassall Street, Wetherill Park NSW 2164 Australia	
Telephone	0800 476 265	+61 2 9757 8800	
Fax	+64 9 273 6489	+61 2 9757 3855	
Website	www.itwpf.co.nz	www.itwpf.com.au	
Email	Not Available	Not Available	

Emergency telephone number

Association / Organisation	ITW Polymers & Fluids (NZ)	CHEMWATCH EMERGENCY RESPONSE (24/7)	CHEMWATCH EMERGENCY RESPONSE (24/7)
Emergency telephone numbers	0800 2436 2255	+61 1800 951 288	+64 800 700 112
Other emergency telephone numbers	Not Available	+61 3 9573 3188	+61 3 9573 3188

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

SECTION 2 Hazards identification

Classification of the substance or mixture

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

Classification [1]	Aerosols Category 1, Aspiration Hazard Category 1, Serious Eye Damage/Eye Irritation Category 2, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Hazardous to the Aquatic Environment Long-Term Hazard Category 3
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 (aspiration), 6.4A, 6.9B (narcotic effects), 9.1C

Issue Date: 23/12/2022 Print Date: 12/11/2023

Label elements

Hazard pictogram(s)







Signal word

Danger

Hazard statement(s)

H222+H229	Extremely flammable aerosol. Pressurized container: may burst if heated.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statement(s) General

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.

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.
P271	Use only outdoors or in a well-ventilated area.

Precautionary statement(s) Response

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider.	
P331	Do NOT induce vomiting.	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.	

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	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
63748-98-1	10-30	mineral oil
Not Available		(solvent refined)
Not Available	10-30	hydrocarbon solvent
Not Available	<10	surfactant
Not Available	<10	dye

Chemwatch: 25118 Page 3 of 11 Issue Date: 23/12/2022 Version No: 9.1 Print Date: 12/11/2023

Rocol Flaw Finder VW Spray No.2

CAS No	%[weight]	Name
68476-85-7.	30-60	hydrocarbon propellant
Legend	1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOELVs available	

SECTION 4 First aid measures

Description of first aid measures

Eye Contact	If aerosols come in contact with the eyes: Immediately hold the eyelids apart and flush the eye 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. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in 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	Not considered a normal route of entry. If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice.

Indication of any immediate medical attention and special treatment needed

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO2 50 mm Hg) should be intubated.
- Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
- Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology]

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.

Chemwatch: 25118 Page 4 of 11 Issue Date: 23/12/2022 Version No: 9.1 Print Date: 12/11/2023

Rocol Flaw Finder VW Spray No.2

	 May be violently or explosively reactive. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course.
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. Combustion products include: carbon dioxide (CO2) other pyrolysis products typical of burning organic material.

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 personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. May be violently or explosively reactive. Wear breathing apparatus plus protective gloves. 	

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

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	 Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps.
Other information	 Store below 38 deg. C. 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.

Conditions for safe storage, including any incompatibilities

Suitable container	Aerosol dispenser. Check that containers are clearly labelled.
Storage incompatibility	► 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
New Zealand Workplace Exposure Standards (WES)	mineral oil	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	(om) - Sampled by a method that does not collect vapour
New Zealand Workplace Exposure Standards (WES)	hydrocarbon propellant	LPG (Liquefied petroleum gas)	1000 ppm / 1800 mg/m3	Not Available	Not Available	Not Available

Issue Date: 23/12/2022 Print Date: 12/11/2023

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
mineral oil	140 mg/m3	1,500 mg/m3	8,900 mg/m3
hydrocarbon propellant	65,000 ppm	2.30E+05 ppm	4.00E+05 ppm

Ingredient	Original IDLH	Revised IDLH
mineral oil	2,500 mg/m3	Not Available
hydrocarbon propellant	2,000 ppm	Not Available

Exposure controls

Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

Individual protection measures, such as personal protective equipment









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

- ► OTHERWISE:
- ▶ For potentially moderate exposures:
- ▶ Wear general protective gloves, eg. light weight rubber gloves.

▶ No special equipment needed when handling small quantities.

- For potentially heavy exposures:
- Wear chemical protective gloves, eg. PVC. and safety footwear.

Body protection

See Other protection below

No special equipment needed when handling small quantities.

OTHERWISE:

- Overalls.
- Skin cleansing cream.
- Other protection
- Eyewash unit.
- 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.

Respiratory protection

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

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Red/pink liquid with a hydrocarbon odour; does not mix with water. Supplied as an aerosol pack. Contents under PRESSURE . Contains highly flammable hydrocarbon propellant.		
Physical state	Liquid	Relative density (Water = 1)	<1
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Applicable	Decomposition temperature (°C)	Not Available

Issue Date: 23/12/2022 Print Date: 12/11/2023

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)	-81 propellant	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	HIGHLY FLAMMABLE.	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	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

Inhaled	Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination. If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death. WARNING:Intentional misuse by concentrating/inhaling contents may be lethal.
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual. Not normally a hazard due to physical form of product. Ingestion may result in nausea, pain, vomiting. Vomit entering the lungs by aspiration may cause potentially lethal chemical pneumonitis.
Skin Contact	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. The material may accentuate any pre-existing dermatitis condition
Еуе	The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
Chronic	Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin.

Rocol Flaw Finder VW Spray No.2	TOXICITY Not Available	IRRITATION Not Available
mineral oil	TOXICITY Not Available	IRRITATION Not Available
hydrocarbon propellant	TOXICITY Inhalation(Rat) LC50: 658 mg/l4h ^[2]	IRRITATION Not Available

Issue Date: 23/12/2022 Print Date: 12/11/2023

Legend:

undergone, since:

1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

The materials included in the Lubricating Base Oils category are related from both process and physical-chemical perspectives; The potential toxicity of a specific distillate base oil is inversely related to the severity or extent of processing the oil has

• The adverse effects of these materials are associated with undesirable components, and

- The levels of the undesirable components are inversely related to the degree of processing;
- Distillate base oils receiving the same degree or extent of processing will have similar toxicities;
- The potential toxicity of residual base oils is independent of the degree of processing the oil receives.

MINERAL OIL

• The reproductive and developmental toxicity of the distillate base oils is inversely related to the degree of processing. Unrefined & mildly refined distillate base oils contain the highest levels of undesirable components, have the largest variation of hydrocarbon molecules and have shown the highest potential cancer-causing and mutation-causing activities. Highly and severely refined distillate base oils are produced from unrefined and mildly refined oils by removing or transforming undesirable components. In comparison to unrefined and mildly refined base oils, the highly and severely refined distillate base oils have a smaller range of hydrocarbon molecules and have demonstrated very low mammalian toxicity. Testing of residual oils for mutation-causing and cancer-causing potential has shown negative results, supporting the belief that these materials lack biologically active components or the components are largely non-bioavailable due to their molecular size. Toxicity testing has consistently shown that lubricating base oils have low acute toxicities.

HYDROCARBON PROPELLANT

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

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

Legend:

★ - Data either not available or does not fill the criteria for classification

Data available to make classification

SECTION 12 Ecological information

Toxicity

Rocol Flaw Finder VW Spray No.2	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
mineral oil	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	96h	Algae or other aquatic plants	7.71mg/l	2
ydrocarbon propellant	LC50	96h	Fish	24.11mg/l	2
	EC50(ECx)	96h	Algae or other aquatic plants	7.71mg/l	2
Legend:	Extracted from	1 ILICLID Toxicity Data 2 Furon	e ECHA Registered Substances - Ecotoxicologica	al Information - Aqua	atic Toxic

Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

For Hydrocarbons: log Kow 1. BCF~10.

For Aromatics: log Kow 2-3.

BCF 20-200.

Drinking Water Standards: hydrocarbon total: 10 ug/l (UK max.).

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air	
	No Data available for all ingredients	No Data available for all ingredients	

Issue Date: 23/12/2022 Print Date: 12/11/2023

Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

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.

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

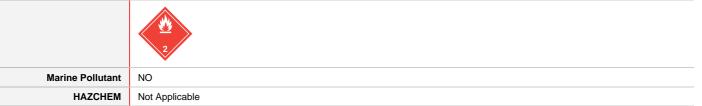
Disposal Requirements

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



Land transport (UN)

	JN number or ID number	1950		
	JN proper shipping name	AEROSOLS		
	Fransport hazard class(es)	Class 2.1 Subsidiary Hazard Not Applicable		
14.4. F	Packing group	Not Applicable		
	Environmental nazard	Not Applicable		
	Special precautions or user	Special provisions Limited quantity	63; 190; 277; 327; 344; 381 1000ml	

Air transport (ICAO-IATA / DGR)

14.1. UN number	1950
14.2. UN proper shipping name	Aerosols, flammable

Issue Date: 23/12/2022 Print Date: 12/11/2023

4.2. Transport harrand	ICAO/IATA Class	2.1	
14.3. Transport hazard class(es)	ICAO / IATA Subsidiary Hazard	Not Applicable	
()	ERG Code	10L	
14.4. Packing group	Not Applicable		
14.5. Environmental hazard	Not Applicable		
	Special provisions		A145 A167 A802
	Cargo Only Packing Instructions		203
	Cargo Only Maximum Qty / Pack		150 kg
14.6. Special precautions for user	Passenger and Cargo Packing Instructions		203
ioi usei	Passenger and Cargo Maximum Qty / Pack		75 kg
	Passenger and Cargo Limited Quantity Packing Instructions		Y203
	Passenger and Cargo Limited Ma	Passenger and Cargo Limited Maximum Qty / Pack	

Sea transport (IMDG-Code / GGVSee)

1950	
AEROSOLS	
IMDG Class	2.1
IMDG Subsidiary Hazard Not Applicable	
Not Applicable	
Not Applicable	
EMS Number	F-D, S-U
Special provisions	63 190 277 327 344 381 959
Limited Quantities	1000 ml
	AEROSOLS IMDG Class IMDG Subsidiary Ha Not Applicable Not Applicable EMS Number Special provisions

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

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

Product name	Group
mineral oil	Not Available
hydrocarbon propellant	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
mineral oil	Not Available
hydrocarbon propellant	Not Available

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 2020

Please refer to Section 8 of the SDS for any applicable tolerable exposure limit or Section 12 for environmental exposure limit.

mineral oil is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

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

Issue Date: 23/12/2022 Print Date: 12/11/2023

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Workplace Exposure Standards (WES)

hydrocarbon propellant is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

Hazardous Substance Location

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

Hazard Class	Quantity (Closed Containers)	Quantity (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
Not Applicable	Not Applicable

Refer Group Standards for further information

Maximum quantities of certain hazardous substances permitted on passenger service vehicles

Subject to Regulation 13.14 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Gas (aggregate water capacity in mL)	Liquid (L)	Solid (kg)	Maximum quantity per package for each classification
2.1.2A				1L (aggregate water capacity)

Tracking Requirements

Not Applicable

National Inventory Status

National Inventory	Status	
Australia - AIIC / Australia Non-Industrial Use	No (mineral oil)	
Canada - DSL	No (mineral oil)	
Canada - NDSL No (mineral oil; hydrocarbon propellant)		
China - IECSC	No (mineral oil)	
Europe - EINEC / ELINCS / NLP	No (mineral oil)	
Japan - ENCS	Yes	
Korea - KECI	No (mineral oil)	
New Zealand - NZIoC	No (mineral oil)	
Philippines - PICCS	No (mineral oil)	
USA - TSCA	No (mineral oil)	
Taiwan - TCSI	No (mineral oil)	
Mexico - INSQ	No (mineral oil)	
Vietnam - NCI	No (mineral oil)	
Russia - FBEPH	No (mineral oil)	
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.	

Chemwatch: 25118 Page 11 of 11 Issue Date: 23/12/2022 Version No: 9.1 Print Date: 12/11/2023

Rocol Flaw Finder VW Spray No.2

SECTION 16 Other information

Revision Date	23/12/2022
Initial Date	16/06/2006

SDS Version Summary

Version Date of Update Sections Updated		Sections Updated
8.1	30/12/2020 Classification change due to full database hazard calculation/update.	
9.1 23/12/2022 Classification review due to GHS Revision change.		Classification review due to GHS Revision change.

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.

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TEL (+61 3) 9572 4700.

Rocol Flaw Finder Cleaner Spray No.1 ITW Polymers & Fluids (NZ)

Chemwatch: 10667 Version No: 15.1

Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017

Chemwatch Hazard Alert Code: 4

Issue Date: **10/03/2023**Print Date: **12/11/2023**S.GHS.NZL.EN

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

Product Identifier

Product name	Rocol Flaw Finder Cleaner Spray No.1	
Chemical Name	Not Applicable	
Synonyms	Not Available	
Proper shipping name	AEROSOLS	
Chemical formula	Not Applicable	
Other means of identification	Not Available	

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

Relevant identified uses	Metal cleaner; to clean welds prior to testing for defects with Rocol Flaw Finder. Application is by spray atomisation from a hand held aerosol pack
	Application is by spray atomisation from a field derosol pack

Details of the manufacturer or supplier of the safety data sheet

Registered company name	ITW Polymers & Fluids (NZ)	ITW POLYMERS & FLUIDS
Address	Unit 2/38 Trugood Drive, East Tamaki, Auckland 2013 New Zealand	100 Hassall Street, Wetherill Park NSW 2164 Australia
Telephone 0800 476 265		+61 2 9757 8800
Fax	+64 9 273 6489	+61 2 9757 3855
Website www.itwpf.co.nz Email Not Available		www.itwpf.com.au
		Not Available

Emergency telephone number

Association / Organisation	ITW Polymers & Fluids (NZ)	CHEMWATCH EMERGENCY RESPONSE (24/7)	CHEMWATCH EMERGENCY RESPONSE (24/7)
Emergency telephone numbers	0800 2436 2255	+61 1800 951 288	+64 800 700 112
Other emergency telephone numbers	Not Available	+61 3 9573 3188	+61 3 9573 3188

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

SECTION 2 Hazards identification

Classification of the substance or mixture

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

Classification ^[1]	Aerosols Category 1, Aspiration Hazard Category 1, Serious Eye Damage/Eye Irritation Category 2, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Hazardous to the Aquatic Environment Acute Hazard Category 1, Hazardous to the Aquatic Environment Long-Term Hazard Category 1
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 (aspiration), 6.4A, 6.9B (narcotic effects), 9.1A

Rocol Flaw Finder Cleaner Spray No.1

Issue Date: 10/03/2023 Print Date: 12/11/2023

Label elements

Hazard pictogram(s)









Signal word

Danger

Hazard statement(s)

H222+H229	Extremely flammable aerosol. Pressurized container: may burst if heated.	
H304 May be fatal if swallowed and enters airways.		
H319 Causes serious eye irritation.		
H336 May cause drowsiness or dizziness.		
H410 Very toxic to aquatic life with long lasting effects.		

Precautionary statement(s) General

P101	If medical advice is needed, have product container or label at hand.	
P102	Keep out of reach of children.	
P103	P103 Read carefully and follow all instructions.	

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.		
P271 Use only outdoors or in a well-ventilated area.		

Precautionary statement(s) Response

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider.	
P331	Do NOT induce vomiting.	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.	

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	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
Not Available		naphtha (petroleum), light alkylate, as
540-84-1	40-50	2,2,4-trimethylpentane
67-64-1	20-30	acetone
68476-85-7.	30-40	hydrocarbon propellant

Legend:

1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No

Chemwatch: 10667 Version No: 15.1 Page 3 of 12

Rocol Flaw Finder Cleaner Spray No.1

Issue Date: 10/03/2023 Print Date: 12/11/2023

1272/2008 - Annex VI; 4. Classification drawn from C&L; * EU IOELVs available

SECTION 4 First aid measures

Description of first aid measures

Eye Contact	If aerosols come in contact with the eyes: Immediately hold the eyelids apart and flush the eye 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. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in 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	Not considered a normal route of entry. If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice.

Indication of any immediate medical attention and special treatment needed

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO2 50 mm Hg) should be intubated.
- Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
- Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology]

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.

Chemwatch: 10667 Page 4 of 12

Rocol Flaw Finder Cleaner Spray No.1

Issue Date: **10/03/2023**Print Date: **12/11/2023**

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.

Combustion products include:

carbon dioxide (CO2)

other pyrolysis products typical of burning organic material.

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Version No: 15.1

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 personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.

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

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling

- ► Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- ► Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.

Oth an infamoration

- ► Store below 38 deg. C.
- Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can

Other information

- 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.

Conditions for safe storage, including any incompatibilities

Suitable container

- Aerosol dispenser.
- ▶ Check that containers are clearly labelled.

Storage incompatibility

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
New Zealand Workplace Exposure Standards (WES)	acetone	Acetone	500 ppm / 1185 mg/m3	2375 mg/m3 / 1000 ppm	Not Available	(bio) - Exposure can also be estimated by biological monitoring
New Zealand Workplace Exposure Standards (WES)	hydrocarbon propellant	LPG (Liquefied petroleum gas)	1000 ppm / 1800 mg/m3	Not Available	Not Available	Not Available

Emergency Limits

Issue Date: 10/03/2023 Chemwatch: 10667 Page 5 of 12 Print Date: 12/11/2023 Version No: 15.1

Rocol Flaw Finder Cleaner Spray No.1

Ingredient	TEEL-1	TEEL-2	TEEL-3
2,2,4-trimethylpentane	230 ppm	830 ppm	5000* ppm
acetone	Not Available	Not Available	Not Available
hydrocarbon propellant	65,000 ppm	2.30E+05 ppm	4.00E+05 ppm

Ingredient	Original IDLH	Revised IDLH
2,2,4-trimethylpentane	Not Available	Not Available
acetone	2,500 ppm	Not Available
hydrocarbon propellant	2,000 ppm	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit	
2,2,4-trimethylpentane	Е	≤ 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.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

Individual protection measures, such as personal protective equipment











Eye and face protection

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

- ▶ No special equipment needed when handling small quantities.
- OTHERWISE:
- For potentially moderate exposures: Hands/feet protection
 - ▶ 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

No special equipment needed when handling small quantities.

OTHERWISE:

- Overalls.
- Skin cleansing cream.

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.

Respiratory protection

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

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Clear colourless volatile highly flammable liquid with petrol-like odour; does not mix with water. Supplied as an aerosol pack. Contents under PRESSURE. Contains highly flammable hydrocarbon propellant. **Rocol Flaw Finder Cleaner Spray No.1**

Issue Date: 10/03/2023 Print Date: 12/11/2023

Physical state	Liquid	Relative density (Water = 1)	Not Available
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Applicable	Decomposition temperature (°C)	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)	-81 (propellant)	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	HIGHLY FLAMMABLE.	Oxidising properties	Not Available
Upper Explosive Limit (%)	10.0 (propellant)	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.5 (propellant)	Volatile Component (%vol)	100
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Applicable
Vapour density (Air = 1)	>1	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	Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination. If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death. WARNING:Intentional misuse by concentrating/inhaling contents may be lethal.
Ingestion	Not normally a hazard due to physical form of product. Ingestion may result in nausea, pain, vomiting. Vomit entering the lungs by aspiration may cause potentially lethal chemical pneumonitis.
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition
Eye	There is evidence that material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Severe inflammation may be expected with pain.
Chronic	Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin. Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS]

Rocol Flaw Finder Cleaner	TOXICITY	IRRITATION
Spray No.1	Not Available	Not Available

Page 7 of 12 Issue Date: 10/03/2023 Print Date: 12/11/2023 **Rocol Flaw Finder Cleaner Spray No.1**

2,2,4-trimethylpentane	TOXICITY	IRRITATION	
	Dermal (rabbit) LD50: >2000 mg/kg ^[1]	Eye: no adverse effect observed (not irritating) ^[1]	
	Inhalation(Rat) LC50: >33.52 mg/l4h ^[1]	Skin: no adverse effect observed (not irritating) ^[1]	
	Oral (Rat) LD50: >5000 mg/kg ^[1]		
	TOXICITY	IRRITATION	
	Dermal (rabbit) LD50: 20000 mg/kg ^[2]	Eye (human): 500 ppm - irritant	
	Inhalation(Mouse) LC50; 44 mg/L4h ^[2]	Eye (rabbit): 20mg/24hr -moderate	
	Oral (Rat) LD50: 5800 mg/kg ^[2]	Eye (rabbit): 3.95 mg - SEVERE	
acetone		Eye: adverse effect observed (irritating) ^[1]	
		Skin (rabbit): 500 mg/24hr - mild	
		Skin (rabbit):395mg (open) - mild	
		Skin: no adverse effect observed (not irritating) ^[1]	
	TOXICITY	IRRITATION	
hydrocarbon propellant	Inhalation(Rat) LC50: 658 mg/l4h ^[2]	Not Available	
Legend:	Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances		

The safety of isoparaffins as used in cosmetic products was reviewed by the Cosmetic Ingredient Review (CIR) Expert Panel. These ingredients function mostly as solvents and also function as emollients in the 0001% to 90% concentration range. The CIR Expert Panel has reviewed relevant animal and clinical data and concluded that these ingredients are safe in the present practices of use and concentration

The CIR Expert Panel noted that most of the available data related to oral or inhalation exposure to isoparaffins, but the dermal and ocular exposure data that were available, suggested mild ocular irritation, mild-to-severe irritation, no sensitization or photosensitization, and no phototoxicity. No significant toxicity was identified in oral or inhalation exposure studies of the following end points: genotoxicity, reproductive and developmental toxicity, or carcinogenicity. Nephrotoxicity, however, was a concern. The Expert Panel noted the involvement of a2u-globulin in the mechanism for isoparaffin-induced nephrotoxicity/renal tubule cell proliferation in male rats of various strains in oral and inhalation exposure studies.

TRIMETHYLPENTANE

Animal studies indicate that normal, branched and cyclic paraffins are absorbed from the gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cyclo-

The major classes of hydrocarbons are well absorbed into the gastrointestinal tract in various species. In many cases, the hydrophobic hydrocarbons are ingested in association with fats in the diet. Some hydrocarbons may appear unchanged as in the lipoprotein particles in the gut lymph, but most hydrocarbons partly separate from fats and undergo metabolism in the gut cell. 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.

ACETONE

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.

The acute toxicity of acetone is low. Acetone is not a skin irritant or sensitizer, but it removes fat from the skin, and it also irritates the eye. Animal testing shows acetone may cause anaemia. Studies in humans have shown that exposure to acetone at a level of 2375 mg/m3 does not negatively impact an individual's emotional regulation, behaviour, or learning ability.

HYDROCARBON PROPELLANT

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

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

Rocol Flaw Finder Cleaner Spray No.1

Issue Date: **10/03/2023**Print Date: **12/11/2023**

✓ – Data available to make classification

SECTION 12 Ecological information

Toxicity

	Endpoint	Test Duration (hr)		Species		Value	Source
Rocol Flaw Finder Cleaner Spray No.1	Not Available Not Available			Not Available		Not Available	Not Available
	Endpoint	Test Duration (hr)		Species		Value	Source
	LC50	96h		Fish		0.11mg/l	2
2,2,4-trimethylpentane	BCF	672h		Fish		440-580	7
	EC50	48h		Crustacea		0.4mg/l	2
	NOEC(ECx)	504h		Crustacea		0.17mg/l	2
	Endpoint	Test Duration (hr) Sp		ecies Value			Source
	LC50	96h Fis		h 3744.6-		-5000.7mg/L	4
	NOEC(ECx)	12h	Fis	h	0.001m	ıg/L	4
acetone	EC50	72h	Alg	gae or other aquatic plants	5600-1	0000mg/l	4
	EC50	48h	Cru	ustacea	6098.4	mg/L	5
	EC50	96h Alç		gae or other aquatic plants 9.873-2		27.684mg/l	4
	Endpoint	Test Duration (hr)		Species		Value	Source
h	EC50	96h		Algae or other aquatic plants		7.71mg/l	2
hydrocarbon propellant	LC50	96h		Fish		24.11mg/l	2
	EC50(ECx)	96h		Algae or other aquatic plants		7.71mg/l	2
Legend:	4. US EPA, Ec	IUCLID Toxicity Data 2. Europotox database - Aquatic Toxicity Data 7. METI (Japan) - Biocop	Data 5. ECE	TOC Aquatic Hazard Assessme	•	•	

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

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

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
2,2,4-trimethylpentane	HIGH	HIGH
acetone	LOW (Half-life = 14 days)	MEDIUM (Half-life = 116.25 days)

Bioaccumulative potential

Ingredient	Bioaccumulation
2,2,4-trimethylpentane	MEDIUM (BCF = 650)
acetone	LOW (BCF = 0.69)

Mobility in soil

Ingredient	Mobility
2,2,4-trimethylpentane	LOW (KOC = 275.5)
acetone	HIGH (KOC = 1.981)

SECTION 13 Disposal considerations

Waste treatment methods

Page 9 of 12 Rocol Flaw Finder Cleaner Spray No.1

Issue Date: **10/03/2023**Print Date: **12/11/2023**

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.

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



HAZCHEM

Not Applicable

Land transport (UN)

14.1. UN number or ID number	1950				
14.2. UN proper shipping name	AEROSOLS	AEROSOLS			
14.3. Transport hazard class(es)	Class Subsidiary Hazard				
14.4. Packing group	Not Applicable	Not Applicable			
14.5. Environmental hazard	Environmentally hazardous				
14.6. Special precautions for user	Special provisions 63; 190; 277; 327; 344; 381 Limited quantity 1000ml				

Air transport (ICAO-IATA / DGR)

14.1. UN number	1950			
14.2. UN proper shipping name	Aerosols, flammable			
	ICAO/IATA Class	2.1		
14.3. Transport hazard class(es)	ICAO / IATA Subsidiary Hazard	Not Applicable		
0.000(00)	ERG Code	10L		
14.4. Packing group	Not Applicable	Not Applicable		
14.5. Environmental hazard	Environmentally hazardous			
	Special provisions		A145 A167 A802	
14.6. Special precautions	Cargo Only Packing Instructions		203	
for user	Cargo Only Maximum Qty / Pack		150 kg	
	Passenger and Cargo Packing Instructions		203	
				

Version No: 15.1

Rocol Flaw Finder Cleaner Spray No.1

Issue Date: 10/03/2023 Print Date: 12/11/2023

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)

14.1. UN number	1950			
14.2. UN proper shipping name	AEROSOLS			
14.3. Transport hazard class(es)	IMDG Class IMDG Subsidiary Ha	IMDG Class 2.1 IMDG Subsidiary Hazard Not Applicable		
14.4. Packing group	Not Applicable			
14.5 Environmental hazard	Marine Pollutant			
14.6. Special precautions for user	EMS Number F-D, S-U Special provisions 63 190 277 327 344 381 959 Limited Quantities 1000 ml			

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

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

Product name	Group
2,2,4-trimethylpentane	Not Available
acetone	Not Available
hydrocarbon propellant	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
2,2,4-trimethylpentane	Not Available
acetone	Not Available
hydrocarbon propellant	Not Available

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 2020	

Please refer to Section 8 of the SDS for any applicable tolerable exposure limit or Section 12 for environmental exposure limit.

2,2,4-trimethylpentane is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

acetone is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

hydrocarbon propellant is found on the following regulatory lists

Version No: 15.1

Rocol Flaw Finder Cleaner Spray No.1

Issue Date: **10/03/2023**Print Date: **12/11/2023**

Chemical Footprint Project - Chemicals of High Concern List

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

Hazardous Substance Location

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

Hazard Class	Quantity (Closed Containers)	Quantity (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
Not Applicable	Not Applicable

Refer Group Standards for further information

Maximum quantities of certain hazardous substances permitted on passenger service vehicles

Subject to Regulation 13.14 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Gas (aggregate water capacity in mL)	Liquid (L)	Solid (kg)	Maximum quantity per package for each classification
2.1.2A				1L (aggregate water capacity)

Tracking Requirements

Not Applicable

National Inventory Status

National Inventory	Status	
Australia - AIIC / Australia Non-Industrial Use	Yes	
Canada - DSL	Yes	
Canada - NDSL	No (2,2,4-trimethylpentane; acetone; hydrocarbon propellant)	
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 - FBEPH	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. These ingredients may be exempt or will require registration.	

SECTION 16 Other information

Revision Date	10/03/2023
Initial Date	16/06/2006

Chemwatch: 10667 Page 12 of 12 Issue Date: 10/03/2023 Version No: 15.1 Print Date: 12/11/2023

Rocol Flaw Finder Cleaner Spray No.1

SDS Version Summary

Version	Date of Update	Sections Updated
14.1	23/12/2022	Classification review due to GHS Revision change.
15.1	10/03/2023	Classification change due to full database hazard calculation/update.

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.

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