SAFETY DATA SHEET

CITRUS SPOT GEL

CLEANING SYSTEMS LIMITED

Catalogue number: **FT486**
Version No: **3.1**
Issue date: **15/12/2021**

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

Product Identifier

Product name	CITRUS SPOT GEL
Product code	FT486
Pack sizes	500ml & 5L

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

Relevant identified uses	Solvent gel for grease, paint and ink spot removal

Details of the manufacturer/importer

Registered company name	CLEANING SYSTEMS LIMITED
Address	331A East Tamaki Road, East Tamaki, Auckland, 2013, NZ
Telephone	+64 9579 4114, 0800 100 117
Website	www.cleaningsystems.co.nz
Email	sales@cleaningsystems.co.nz

Emergency telephone number

Association / Organisation	National Poisons Centre
Emergency telephone numbers	0800-764-766 (0800 POISON)
Other emergency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the criteria of New Zealand HSNO Hazardous Substances (Hazard Classification) Notice 2020 and New Zealand NZS5433.

Hazard Classification	Aspiration Hazard Category 1, Skin Corrosion/Irritation Category 2, Skin Sensitizer Category 1B. Reproductive Toxicity Category 1B, Hazardous to the aquatic environment short-term (Acute) Category 1, Hazardous to the aquatic environment long-term (Chronic) Category 1.
	Classification drawn from HCIS, ECHA C&L Inventory and HSNO CCID.

Label elements

Hazard pictogram	
SIGNAL WORD	**DANGER**

Hazard statement(s)

H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H360D	May damage the unborn child.
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Precautionary statement(s) Prevention

P201	Obtain special instructions before use
P202	Do not handle before all safety instructions have been read and understood
P281	Use personal protective equipment as required.
P280	Wear protective gloves.
P261	Avoid breathing fumes or vapours.
P273	Avoid release to the environment.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary statement(s) Response

P301+P310+P331	IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting.
P302+P362+P352+P333+P313	IF ON SKIN: Take off contaminated clothing. Wash with plenty of water and soap. If skin irritation or rash occurs, get medical advice / attention.
P363	Wash contaminated clothing before reuse.
P304+P340+P312	IF INHALED: Remove person to fresh air and keep in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
P308+P313	IF exposed or concerned: Get medical advice/attention.

Precautionary statement(s) Storage

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

Precautionary statement(s) Disposal

P501	Dispose of contents / container in accordance with local government regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
5989-27-5	10-<30	d-limonene
64742-48-9	30-60	naphtha petroleum, isoparaffin, hydrotreated
872-50-4	<10	N-methyl-2-pyrrolidone

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	If this product comes in contact with eyes: Wash out immediately with water. If irritation continues, seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin 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 fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. If patient is unwell transport to hospital, or doctor, without delay.
Ingestion	If swallowed do **NOT** induce vomiting. If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus. 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. Avoid giving milk or oils. Avoid giving alcohol

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, tachypnea, intercostal retraction, and 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 cardio selective 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

Extinguishing media	There is no restriction on the type of extinguisher which may be used. Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

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

Advice for firefighters

Fire Fighting	Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. Use firefighting procedures suitable for surrounding area. **DO NOT** approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.
Fire/Explosion Hazard	**WARNING:** In use may form flammable/ explosive vapour-air mixtures, carbon dioxide (CO2) and other pyrolysis products typical of burning organic material May emit poisonous fumes. May emit corrosive fumes.
HAZCHEM	Not applicable

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills	Clean up all spills immediately. Avoid contact with skin and eyes. Wear impervious gloves and safety goggles. Trowel up/scrape up. Place spilled material in clean, dry, sealed container. Flush spill area with water. IF PREGNANT take special care not to breath vapours or incur skin contact. (See PPE in Section 8)
Major Spills	Minor hazard. Control personal contact with the substance, by using protective equipment as required. Prevent spillage from entering drains or water ways. Absorb on sand, dirt, vermiculite or similar absorbent material. Place into labelled drums and dispose of according to local government regulations. Immediately notify emergency services (Police or Fire Brigade) if the spill is too large for you to safely and effectively handle. IF PREGNANT take special care not to breath vapours or incur skin contact. (See PPE in Section 8)

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	Do not eat, drink or smoke while handling the product. Containers, even those that have been emptied, may contain explosive vapours. Do NOT cut, drill, grind, weld or perform similar operations near containers. Keep containers tightly closed to prevent the production of explosive peroxides. IF PREGNANT take special care not to breath vapours or incur skin contact. (See PPE in Section 8)
Other information	Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS.

Conditions for safe storage, including any incompatibilities

Suitable container	Polyethylene or polypropylene container. Packing as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	There is a small danger of the product forming unstable peroxides in storage if exposed to air for long periods. Is incompatible with strong acids, including acidic clays, peroxides, halogens, vinyl chloride and iodine pentafluoride Avoid reaction with oxidising agents

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

Source	Ingredient	Material name	TWA	STEL	Notes
EH40/2005 Workplace Exposure Limits	N-methyl-2-pyrrolidone	1-Methyl-2-pyrrolidone	40 mg/m3 / 10 ppm	80 mg/m3 / 20 ppm	Sk

Exposure controls

CAUTION: This product contains an ingredient which may damage the unborn child. It is, therefore, of all importance that pregnant women take every precaution to avoid contact with the product and its vapours.

Appropriate engineering controls	Maintain adequate ventilation at all times. In most circumstances natural ventilation systems are adequate. If ventilation is poor, then the use of a local exhaust ventilation system is recommended
Personal protection	
Eye and face protection	Eye protection is unlikely to be needed due to the gelled nature of the product.
Skin protection	See Hand protection below
Hands/feet protection	Wear chemical protective gloves, e.g. Neoprene rubber The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoidall possible skin contact. Contaminated leather items, such as shoes, belts and watch-bands should be removed and. destroyed
Body protection	See Other protection below
Other protection	P.V.C. apron. Barrier cream. Skin cleansing cream. Eye wash unit. IF PREGNANT – a suitable respirator should be used to avoid breathing in vapours. (See note below)
Thermal hazards	Not Available

Respiratory protection

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

The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Smooth white gel

Physical state	Gel	**Relative density (Water = 1)**	0.891
Odour	Limonene	**Molecular weight (g/mol)**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature**	Not Available
pH (as supplied)	Not Applicable	**Decomposition**	Not Available
Upper Explosive Limit (%)	Not Available	**Viscosity (cSt)**	Not Available
Initial boiling point and boiling range (°C)	Not Available	**Partition coefficient n-octanol / water**	Not Available
Flash point (°C)	Not Applicable	**Taste**	Not Available
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	Not flammable	**Oxidising properties**	Not Available
Melting point / freezing point (°C)	Not Applicable	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	Not Applicable	**Volatile Component (%vol)**	Not Available
Vapour pressure (kPa)	Not Available	**Gas group**	Not Available
Solubility in water (g/L)	Partly miscible	**pH as a solution (1%)**	Not Available
Vapour density (Air = 1)	Not Available	**VOC g/L**	Not Available

SECTION 10 STABILITY AND REACTIVITY

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

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. IF PREGNANT, inhaled vapours may cause damage to the unborn child.
Ingestion	The material has **NOT** been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence. IF PREGNANT and the product is ingested it may cause damage to the unborn child
Skin Contact	This material can cause inflammation of the skin on contact in some persons. 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. This material may cause an allergic dermatitis in some susceptible persons.
Eye	Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).
Chronic	Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general

Toxicological effects of ingredients

naphtha petroleum, isoparaffin, hydrotreated	Acute toxicity	Oral LD50 (rat) >5000 mg/kg Dermal LD50 (rabbit) >5000 mg/kg Inhalation LC50 (rat) >5000 mg/m3 (8hr)
	Skin corrosion/irritation	Mildly irritating to skin with prolonged exposure (Based on test data for structurally similar materials)
	Eye damage/irritation	May cause mild, short-lasting discomfort to eyes (Based on test data for structurally similar materials)
	Respiratory/skin sensitization	Not expected to be a respiratory or skin sensitiser. (Based on test data for structurally similar materials)
	Germ cell mutagenicity	Not expected to be a germ cell mutagen (Based on test data for structurally similar materials)
	Carcinogenicity	Not expected to cause cancer (Based on test data for structurally similar materials)
	Reproductive toxicity	Not expected to be a reproductive toxicant (Based on test data for structurally similar materials)
	STOT (single exposure)	Not expected to cause organ damage from a single exposure. Negligible hazard at ambient/normal handling temperatures. Vapour/aerosol concentrations above recommended exposure levels are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects including death.
	STOT (repeated exposure)	Not expected to cause organ damage from prolonged or repeated exposure (Based on test data for structurally similar materials). Prolonged and/or repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis
	Aspiration toxicity	May be fatal if swallowed and enters airways (Based on physicochemical properties of the material). Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.
d-limonene	Acute toxicity	Oral LD50 (rat) 4400 mg/kg Dermal LD50 (rabbit) >5000 mg/kg
	Skin corrosion/irritation	Causes skin irritation
	Eye damage/irritation	Causes serious eye irritation
	Respiratory/skin sensitization	May cause an allergic skin reaction
	Germ cell mutagenicity	No data available
	Carcinogenicity	No data available
	Reproductive toxicity	No data available
	STOT (single exposure)	No data available
	STOT (repeated exposure)	No data available
	Aspiration toxicity	May be fatal if swallowed and enters airways
N-methyl-2-pyrrolidone	Acute toxicity	LD50 Oral - Rat - 3,914 mg/kg LD50 Dermal - Rabbit - 8,000 mg/kg LDLO Inhalation - Rat - 4 h - > 5100 ppm
	Skin corrosion/irritation	Irritating to skin. May cause harm to the unborn child
	Eye damage/irritation	Irritating to eyes.
	Respiratory/skin sensitization	No Data Available
	Germ cell mutagenicity	No Data Available
	Carcinogenicity	No Data Available
	Reproductive toxicity	May cause harm to the unborn child
	STOT (single exposure)	No Data Available
	STOT (repeated exposure)	Bone marrow - Irregularities - Based on Human Evidence
	Aspiration toxicity	No Data Available

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

	Endpoint	Duration (Hr.)	Species	Value
d-limonene	LC50	96	Fish	0.46mg/L
	EC50	48	Crustacea	0.307mg/L
	EC50	72	Algae or other aquatic plants	0.214mg/L
	NOEC	0	Algae or other aquatic plants	<0.05-1.5mg/L
naphtha petroleum, isoparaffin, hydrotreated	LC50	96	Fish	4.1mg/L
	EC50	48	Crustacea	4.5mg/L
	EC50	72	Algae or other aquatic plants	3.1mg/L
	NOEL	72	Algae or other aquatic plants	0.1mg/L
N-methyl-2-pyrrolidone	LC50	96	Fish	>500mg/L
	EC50	48	Crustacea	ca.4897mg/L
	EC50	72	Algae or other aquatic plants	>500mg/L
	EC10	72	Algae or other aquatic plants	92.6mg/L
	NOEC	504	Crustacea	12.5mg/L

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 watermark. 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.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
d-limonene	HIGH	HIGH
N-methyl-2-pyrrolidone	LOW	LOW

Bio accumulative potential

Ingredient	Bioaccumulation
d-limonene	HIGH (LogKOW = 4.8275)
N-methyl-2-pyrrolidone	LOW (BCF = 16)

Mobility in soil

Ingredient	Mobility
d-limonene	LOW (KOC = 1324)
N-methyl-2-pyrrolidone	LOW (KOC = 20.94)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / packaging disposal	Recycle containers whenever possible. Product residues and containers should be disposed of in accordance with local government regulations

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	
HAZCHEM	Not Applicable

Land transport (Not Applicable): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

SECTION 15 REGULATORY INFORMATION

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

D-LIMONENE IS FOUND ON THE FOLLOWING REGULATORY LISTS
New Zealand Inventory of Chemicals (NZIoC)
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
Chemical Classification and Information Database (CCID

NAPHTHA PETROLEUM, HEAVY, HYDROTREATED IS FOUND ON THE FOLLOWING REGULATORY LISTS
New Zealand Inventory of Chemicals (NZIoC)
Chemical Footprint Project - Chemicals of High Concern List
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

N-METHYL-2-PYRROLIDONE IS FOUND ON THE FOLLOWING REGULATORY LISTS

New Zealand Inventory of Chemicals (NZIoC)
Chemical Classification and Information Database (CCID)
Approved hazardous substances with controls
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6
Chemical Footprint Project - Chemicals of High Concern List

NEW ZEALAND HSNO ACT 1996

Substance approval - Cleaning Products (Subsidiary Hazard) Group Standard | HSR002530 | October 2020

SECTION 16 OTHER INFORMATION

Revision Schedule

Revision Date	15/12/2021
Initial Date	08/12/2016

SDS Version Summary

Version	Issue Date	Sections Updated
2.1	08/07/2021	Sections 2, 11, 12, 15, 16 have been updated or corrected
2.2	19/08/2021	Section 2
3.1	15/12/2021	Section 1, 2, 8, 15.

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources such as the ECHA C&L Chemical Inventory, HSNO (CCID) New Zealand, AICIS and HCIS Australia

DISCLAIMER: While the information in this Safety Data Sheet (SDS) is believed to be true and accurate based on the current level of knowledge available to us, the author makes no representations as to its accuracy or sufficiency. Conditions of use are beyond the control of CLEANING SYSTEMS LIMITED and therefore the users are responsible to verify this data under their own particular conditions of use, applications and regulations to determine whether the product is suitable for their particular purpose and they assume all risks of their use, handling, disposal, reliance upon, publication or use of the information contained herein. This information applies only to the product designated above and does not necessarily apply to its use in combination with other materials, products, chemical compounds, structures, or processes

Definitions and abbreviations

PC-TWA;	Permissible Concentration-Time Weighted Average
PC-STEL:	Permissible Concentration-Short Term Exposure Limit
IARC:	International Agency for Research on Cancer
ACGIH:	American Conference of Government Industrial Hygienists
STEL:	Short Term Exposure Limit
TEEL:	Temporary Emergency Exposure Limit
IDLH:	Immediate Danger to Life or Health Concentrations
OSF:	Odour Safety Factor
NOAEL:	No Observed Effects Level
TLV:	Threshold Limit Value
LOD:	Limit Of Detection
OTV:	Odour Threshold Value
BCF:	Bio Concentration Factors
BEI:	Biological Exposure Index

End of SDS