# The Toro Company

# Toro Apple Red

# **The Toro Company**

Chemwatch: 5198-40 Version No: 5.1

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

#### Chemwatch Hazard Alert Code:

Issue Date: 23/12/2022 Print Date: 07/03/2023 S.GHS.USA.EN

#### **SECTION 1 Identification**

#### **Product Identifier**

Product name	Toro Apple Red	
Chemical Name	Not Applicable	
Synonyms	PC9a	
Proper shipping name	Aerosols, flammable, (each not exceeding 1 L capacity); Aerosols, flammable, n.o.s. (engine starting fluid) (each not exceeding 1 L capacity)	
Chemical formula	Not Applicable	
Other means of identification	Not Available	

#### Recommended use of the chemical and restrictions on use

Relevant identified uses

Paints and coatings.

Application is by spray atomisation from a hand held aerosol pack

#### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	The Toro Company	
Address	3111 Lyndale Avenue South, Bloomington MN 55420 United States	
Telephone	952-888-8801	
Fax	+1-952-887-8258	
Website	www.toro.com	
Email	HealthAndSafety@toro.com	

# Emergency phone number

Association / Organisation	CHEMTEL	CHEMWATCH EMERGENCY RESPONSE (24/7)
Emergency telephone numbers	1-800-255-3924	+1 855-237-5573
Other emergency telephone numbers	+1-813-248-0585	+61 3 9573 3188

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

Una vez conectado y si el mensaje no está en su idioma preferido, por favor marque 02

# SECTION 2 Hazard(s) identification

#### Classification of the substance or mixture





Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

Classification

Flammable Liquids Category 1, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2A, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Carcinogenicity Category 2, Reproductive Toxicity Category 1B, Specific Target Organ Toxicity - Repeated Exposure Category 2

#### Label elements

Hazard pictogram(s)







Signal word

Danger

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#### Hazard statement(s)

H224	xtremely flammable liquid and vapour.	
H315	Causes skin irritation.	
H319	Causes serious eye irritation.	
H336	May cause drowsiness or dizziness.	
H351	Suspected of causing cancer.	
H360	May damage fertility or the unborn child.	
H373	May cause damage to organs through prolonged or repeated exposure.	

#### Hazard(s) not otherwise classified

Not Applicable

### Precautionary statement(s) Prevention

P201	Obtain special instructions before use.	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.	
P233	Keep container tightly closed.	
P260	Do not breathe mist/vapours/spray.	
P271	Use only outdoors or in a well-ventilated area.	
P280	Wear protective gloves, protective clothing, eye protection and face protection.	

#### Precautionary statement(s) Response

P308+P313	IF exposed or concerned: Get medical advice/ attention.	
P370+P378	In case of fire: Use alcohol resistant foam or fine spray/water fog to extinguish.	
P305+P351+P338	F 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.	
P314	Get medical advice/attention if you feel unwell.	
P337+P313	P337+P313 If eye irritation persists: Get medical advice/attention.	

#### Precautionary statement(s) Storage

P403+P235	Store in a well-ventilated place. Keep cool.	
P405	Store locked up.	
P403+P233	Store in a well-ventilated place. Keep container tightly closed.	

### Precautionary statement(s) Disposal

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

#### **SECTION 3 Composition / information on ingredients**

#### Substances

See section below for composition of Mixtures

### Mixtures

CAS No	%[weight]	Name
67-64-1	35.21	acetone
74-98-6	15.79	propane
108-88-3	11.46	toluene
106-97-8.	9.27	butane
108-65-6	3.28	propylene glycol monomethyl ether acetate, alpha-isomer
108-10-1	2.15	methyl isobutyl ketone
107-87-9	1.92	methyl propyl ketone
2807-30-9	1.5	2-propoxyethanol

### **SECTION 4 First-aid measures**

# Description of first aid measures

If aerosols come in contact with the eyes:

Eye Contact

- Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- ► Transport to hospital or doctor without delay.
- ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

#### Skin Contact

If solids or aerosol mists are deposited upon the skin:

• Flush skin and hair with running water (and soap if available).

- Remove any adhering solids with industrial skin cleansing cream.
- DO NOT use solvents.

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	► Seek medical attention in the event of irritation.
Inhalation	If aerosols, fumes or combustion products are inhaled:
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.

#### Most important symptoms and effects, both acute and delayed

See Section 11

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

Treat symptomatically.

# **SECTION 5 Fire-fighting 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

Special protective equipment and precautions for fire-fighters	
Fire Fighting	<ul> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>May be violently or explosively reactive.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water course.</li> <li>If safe, switch off electrical equipment until vapour fire hazard removed.</li> <li>Use water delivered as a fine spray to control fire and cool adjacent area.</li> </ul>
Fire/Explosion Hazard	<ul> <li>Liquid and vapour are highly flammable.</li> <li>Severe fire hazard when exposed to heat or flame.</li> <li>Vapour forms an explosive mixture with air.</li> <li>Severe explosion hazard, in the form of vapour, when exposed to flame or spark.</li> <li>Vapour may travel a considerable distance to source of ignition.</li> <li>Heating may cause expansion or decomposition with violent container rupture.</li> <li>Combustion products include:</li> <li>carbon dioxide (CO2)</li> <li>other pyrolysis products typical of burning organic material.</li> <li>Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.</li> </ul>

# **SECTION 6 Accidental release measures**

#### Personal precautions, protective equipment and emergency procedures

See section 8

# **Environmental precautions**

See section 12

# Methods and material for containment and cleaning up

Minor Spills	<ul> <li>Clean up all spills immediately.</li> <li>Avoid breathing vapours and contact with skin and eyes.</li> <li>Wear protective clothing, impervious gloves and safety glasses.</li> <li>Shut off all possible sources of ignition and increase ventilation.</li> <li>Wipe up.</li> <li>If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated.</li> </ul>
Major Spills	<ul> <li>Clear area of personnel and move upwind.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>May be violently or explosively reactive.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water courses</li> <li>No smoking, naked lights or ignition sources.</li> <li>Increase ventilation.</li> </ul>

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

# **SECTION 7 Handling and storage**

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#### Precautions for safe handling

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# Conditions for safe storage, including any incompatibilities

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Suitable container	<ul> <li>Aerosol dispenser.</li> <li>Check that containers are clearly labelled.</li> </ul>
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
US OSHA Permissible Exposure Limits (PELs) Table Z-1	acetone	Acetone	1000 ppm / 2400 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	acetone	Acetone	250 ppm / 590 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	propane	Propane	1000 ppm / 1800 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	propane	Propane	1000 ppm / 1800 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-2	toluene	Toluene	200 ppm	300 ppm	500 (10 min) ppm	(Z37.12-1967)
US NIOSH Recommended Exposure Limits (RELs)	toluene	Toluene	100 ppm / 375 mg/m3	560 mg/m3 / 150 ppm	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	butane	n-Butane	800 ppm / 1900 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	methyl isobutyl ketone	Hexone (Methyl isobutyl ketone)	100 ppm / 410 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	methyl isobutyl ketone	Hexone	50 ppm / 205 mg/m3	300 mg/m3 / 75 ppm	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	methyl propyl ketone	2-Pentanone (Methylpropyl ketone)	200 ppm / 700 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	methyl propyl ketone	2-Pentanone	150 ppm / 530 mg/m3	Not Available	Not Available	Not Available

# **Emergency Limits**

Ingredient	TEEL-1	TEEL-2	TEEL-3
acetone	Not Available	Not Available	Not Available
propane	Not Available	Not Available	Not Available
toluene	Not Available	Not Available	Not Available
butane	Not Available	Not Available	Not Available
propylene glycol monomethyl ether acetate, alpha-isomer	Not Available	Not Available	Not Available
methyl isobutyl ketone	75 ppm	500 ppm	3000* ppm
methyl propyl ketone	150 ppm	830 ppm	5000* ppm
2-propoxyethanol	2.2 ppm	24 ppm	140 ppm

Ingredient	Original IDLH	Revised IDLH
acetone	2,500 ppm	Not Available
propane	2,100 ppm	Not Available
toluene	500 ppm	Not Available
butane	Not Available	1,600 ppm
propylene glycol monomethyl ether acetate, alpha-isomer	Not Available	Not Available
methyl isobutyl ketone	500 ppm	Not Available

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Ingredient	Original IDLH	Revised IDLH
methyl propyl ketone	1,500 ppm	Not Available
2-propoxyethanol	Not Available	Not Available

#### Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit	
2-propoxyethanol	E	≤ 0.1 ppm	
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the		

adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

#### **Exposure controls**

#### Appropriate engineering controls

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

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

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

#### Individual protection measures, such as personal protective equipment











- Safety glasses with side shields.
- Chemical goggles

#### Eye and face protection

- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available.
- Close fitting gas tight goggles

DO NOT wear contact lenses

#### Skin protection

See Hand protection below

#### Hands/feet protection

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

#### **Body protection**

See Other protection below

# Other protection

No special equipment needed when handling small quantities. OTHERWISE:

#### Overalls

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

#### Recommended material(s)

#### **GLOVE SELECTION INDEX**

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

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

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Material	СРІ
PE/EVAL/PE	A
TEFLON	В
BUTYL	С
BUTYL/NEOPRENE	С
CPE	С
HYPALON	С
NATURAL RUBBER	С
NATURAL+NEOPRENE	С
NEOPRENE	С
NEOPRENE/NATURAL	С
NITRILE	С
NITRILE+PVC	С
PVA	С
PVC	С
PVDC/PE/PVDC	С
SARANEX-23	С

#### Respiratory protection

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

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	AX-AUS / Class 1	-	AX-PAPR-AUS / Class 1
up to 50 x ES	Air-line*	-	-
up to 100 x ES	-	AX-3	-
100+ x ES	-	Air-line**	-

- \* Continuous-flow; \*\* Continuous-flow or positive pressure demand A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur  $\label{eq:conditional} \mbox{dioxide}(SO2), \ G = \mbox{Agricultural chemicals}, \ K = \mbox{Ammonia}(\mbox{NH3}), \ \mbox{Hg} = \mbox{Mercury}, \ \mbox{NO} = \$ Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)
  - ▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- ▶ 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.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2

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SARANEX-23 2-PLY	С	
VITON	С	
VITON/CHLOROBUTYL	С	
VITON/NEOPRENE	С	

<sup>\*</sup> CPI - Chemwatch Performance Index

**NOTE**: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

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

hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

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

#### **SECTION 9 Physical and chemical properties**

#### Information on basic physical and chemical properties

Appearance	Extremely flammable liquid with aromatic odour.		
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 Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	-44	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	-19	Taste	Not Available
Evaporation rate	Not Applicable	Explosive properties	Not Available
Flammability	HIGHLY FLAMMABLE.	Oxidising properties	Not Available
Upper Explosive Limit (%)	10.9	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.7	Volatile Component (%vol)	530.3 g/l (VOC)
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Not Available	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	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

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 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.

#### Inhaled

Material is highly volatile and may quickly form a concentrated atmosphere in confined or unventilated areas. The vapour may displace and replace air in breathing zone, acting as a simple asphyxiant. This may happen with little warning of overexposure.

The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation.

WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.

Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

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Ingestion	Accidental ingestion of the material may be damaging to the Not normally a hazard due to physical form of product. Considered an unlikely route of entry in commercial/industri	
Skin Contact	Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.  Spray mist may produce discomfort  Open cuts, abraded or irritated skin should not be exposed to this material  Toxic effects may result from skin absorption  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 can cause inflammation of the skin on contact in some persons.	
Eye	There is evidence that material may produce eye irritation ir inflammation may be expected with pain.	n some persons and produce eye damage 24 hours or more after instillation. Severe
Chronic	Harmful: danger of serious damage to health by prolonged of this material can cause serious damage if one is exposed to produce severe defects.  Ample evidence exists from experimentation that reduced hample evidence exists, from results in experimentation, that Prolonged or repeated skin contact may cause drying with or	uman fertility is directly caused by exposure to the material.  It developmental disorders are directly caused by human exposure to the material.  Cracking, irritation and possible dermatitis following.  It may cause some concern following repeated or long-term occupational exposure.
	TOXICITY	IRRITATION
Toro Apple Red	Not Available	Not Available
acetone	TOXICITY	IRRITATION  Eye (human): 500 ppm - irritant  Eye (rabbit): 20mg/24hr -moderate  Eye (rabbit): 3.95 mg - SEVERE  Eye: adverse effect observed (irritating) <sup>[1]</sup> Skin (rabbit): 500 mg/24hr - mild  Skin: no adverse effect observed (not irritating) <sup>[1]</sup> IRRITATION  Not Available  IRRITATION  Eye (rabbit): 2mg/24h - SEVERE  Eye (rabbit): 2mg/24h - SEVERE  Eye (rabbit): 100 mg/30sec - mild  Eye: adverse effect observed (irritating) <sup>[1]</sup> Skin (rabbit): 20 mg/24h-moderate  Skin (rabbit): 500 mg - moderate  Skin: adverse effect observed (irritating) <sup>[1]</sup> Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
butane	TOXICITY	IRRITATION
	Inhalation(Rat) LC50: 658 mg/l4h <sup>[2]</sup>	Not Available
propylene glycol monomethyl ether acetate, alpha-isomer	TOXICITY  dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup> Oral (Rat) LD50: 3739 mg/kg <sup>[2]</sup>	IRRITATION  Eye: no adverse effect observed (not irritating) <sup>[1]</sup> Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
methyl isobutyl ketone	TOXICITY   IRRITATION	
methyl propyl ketone	TOXICITY  Dermal (rabbit) LD50: 6500 mg/kg <sup>[2]</sup> Inhalation(Rat) LC50: >25.5 mg/l4h <sup>[1]</sup> Oral (Rat) LD50: 1600 mg/kg <sup>[2]</sup>	IRRITATION Skin (rabbit): 405 mg (open) mild

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	TOXICITY	IRRITATION	
	Dermal (rabbit) LD50: 960 mg/kg <sup>[2]</sup>		5 mg/24h SEVERE
	Inhalation(Rat) LC50: >2300 ppm4h <sup>[1]</sup>	Eye (rabbit): 100	
2-propoxyethanol	Oral (Rat) LD50: 3089 mg/kg <sup>[2]</sup>		fect observed (irritating) <sup>[1]</sup>
	Crair (rear) 2200: 0000 mg/mg	Skin (rabbit): 50	
			rect observed (irritating) <sup>[1]</sup>
Legend:	Value obtained from Europe ECHA Registered Sub	<u> </u>	<u> </u>
	specified data extracted from RTECS - Register of Tox		inoc ioni manalacatore espe. emece enervice
ACETONE	For acetone: The acute toxicity of acetone is low. Acetone is not a stesting shows acetone may cause macrocytic anaemia metre has not caused neurobehavioural deficits.		
PROPANE	No significant acute toxicological data identified in liter	ature search.	
TOLUENE	For toluene: Acute toxicity: Humans exposed to high levels of tolue from headaches to intoxication, convulsions, narcosis nervous system depression, and in large doses has a congestion and bleeding of the lungs and kidney injury Exposure to inhalation at a concentration of 600 parts (a feeling of well-being), dilated pupils, convulsions an narcosis and death. Toluene can also strip the skin of Subchronic/chronic effects: Repeat doses of toluene cand the kidney.	(sleepiness) and death. When inhale narcotic effect. 60mL has caused deay were all found on autopsy. per million for 8 hours resulted in the d nausea. Exposure to 10000-30000 lipids, causing skin inflammation.	d or swallowed, toluene can cause severe central ath. Death of heart muscle fibres, liver swelling, same and more serious symptoms including euphoria parts per million (1-3%) has been reported to cause
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE, ALPHA-ISOMER	A BASF report (in ECETOC) showed that inhalation e rabbits; but exposure to 145 ppm and 36 ppm had no material, the remaining 90% is alpha isomer. Hazard a SDS	adverse effects. The beta isomer of F	PGMEA comprises only 10% of the commercial
METHYL ISOBUTYL KETONE	MIBK is primarily absorbed by the lungs in animals an the brain, liver, lung, vitreous fluid, kidney and blood. (liver and kidney. MIBK does not cause genetic damag WARNING: This substance has been classified by the	Oral and respiratory routes of exposur e or harm the foetus or offspring, and	re are of minimal effect with changes seen only in the has low toxicity to aquatic organisms.
2-PROPOXYETHANOL	There have been no specific human studies, but the cidramatically reduced.  The material may produce severe irritation to the eye of produce conjunctivitis.  For ethylene glycol monoalkyl ethers and their acetate Typical members of this category are ethylene glycol produce (EGHE) and their acetates.  EGMAEs are substrates for alcohol dehydrogenase is (which are transient metabolites). Further, rapid converthe predominant urinary metabolites of mono substitut Acute Toxicity: Oral LD50 values in rats for all category with decreasing molecular weight. Four to six hour act vapour concentrations practically achievable. Values in EGBEA to LC50 > 2132 ppm (9061 mg/m3) for EGPE values in rabbits range from 435 mg/kg bw (EGBE) to	causing pronounced inflammation. Resets (EGMAEs): propylene ether (EGPE), ethylene glycozyme ADH-3, which catalyzes the corrision of the aldehydes by aldehyde ded glycol ethers. pry members range from 739 (EGHE) atteinhalation toxicity studies were corriange from LCO > 85 ppm (508 mg/m3. No lethality was observed for any of	epeated or prolonged exposure to irritants may  col butyl ether (EGBE) and ethylene glycol hexyl ether conversion of their terminal alcohols to aldehydes ehydrogenase produces alkoxyacetic acids, which are  to 3089 mg/kg bw (EGPE), with values increasing nducted for these chemicals in rats at the highest By for EGHE, LC50 > 400ppm (2620 mg/m3) for
ACETONE & TOLUENE & METHYL ISOBUTYL KETONE & METHYL PROPYL KETONE & 2-PROPOXYETHANOL	The material may cause skin irritation after prolonged vesicles, scaling and thickening of the skin.		ice on contact skin redness, swelling, the production o
METHYL ISOBUTYL KETONE & METHYL PROPYL KETONE	Asthma-like symptoms may continue for months or ev known as reactive airways dysfunction syndrome (RAI criteria for diagnosing RADS include the absence of p asthma-like symptoms within minutes to hours of a do airflow pattern on lung function tests, moderate to sev lymphocytic inflammation, without eosinophilia. RADS the concentration of and duration of exposure to the ir result of exposure due to high concentrations of irritati	DS) which can occur after exposure to revious airways disease in a non-atop cumented exposure to the irritant. Off ere bronchial hyperreactivity on meth (or asthma) following an irritating inh ritating substance. On the other hand	o high levels of highly irritating compound. Main bic individual, with sudden onset of persistent her criteria for diagnosis of RADS include a reversible acholine challenge testing, and the lack of minimal alation is an infrequent disorder with rates related to , industrial bronchitis is a disorder that occurs as a
Acute Toxicity	×	Carcinogenicity	<b>✓</b>
Skin Irritation/Corrosion	~	Reproductivity	<b>→</b>
Serious Eye Damage/Irritation	<b>*</b>	STOT - Single Exposure	<b>→</b>
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	<b>~</b>
361131113411011			
Mutagenicity	X	Aspiration Hazard	X

# **SECTION 12 Ecological information**

To	γi	cit	ŕ٦

Toro Apple Red	Endpoint	Test Duration (hr)	Species	Value	Source

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	Not Available	Not Available	Not Available		Not Available	Not Availabl
	Endpoint	Test Duration (hr)	Species	Valu	e	Sourc
	NOEC(ECx)	12h	Fish	0.00	1mg/L	4
	LC50	96h	Fish	3744	1.6-5000.7mg/L	4
acetone	EC50	72h	Algae or other aquatic plants	5600	)-10000mg/l	4
	EC50	96h	Algae or other aquatic plants	9.87	3-27.684mg/l	4
	EC50	48h	Crustacea	6098	3.4mg/L	5
	Endpoint	Test Duration (hr)	Species		Value	Source
propane	Not Available	Not Available	Not Available		Not Available	Not Availab
	Endpoint	Test Duration (hr)	Species		Value	Sourc
	LC50	96h	Fish		5-35mg/l	4
	EC50	72h	Algae or other aquatic plants		12.5mg/l	4
toluene	EC50	48h	Crustacea		3.78mg/L	5
	NOEC(ECx)	168h	Crustacea		0.74mg/L	5
	EC50	96h	Algae or other aquatic plants		>376.71mg/L	4
	Endpoint	Test Duration (hr)	Species		Value	Source
	LC50	96h	Fish		24.11mg/l	2
butane	EC50(ECx)	96h	Algae or other aquatic plants		7.71mg/l	2
	EC50	96h	Algae or other aquatic plants		7.71mg/l	2
	Endpoint	Test Duration (hr)	Species		Value	Source
	LC50	96h	Fish		100mg/l	1
propylene glycol monomethyl	EC50	72h	Algae or other aquatic plants		>1000mg/l	2
ether acetate, alpha-isomer	EC50	48h	Crustacea		373mg/l	2
	NOEC(ECx)	336h	Fish		47.5mg/l	2
	EC50	96h	Algae or other aquatic plants		>1000mg/l	2
	Endpoint	Test Duration (hr)	Species		Value	Source
	LC50	96h	Fish		>179mg/l	2
methyl isobutyl ketone	EC50	48h	Crustacea		170mg/l	1
	EC50(ECx)	48h	Crustacea		170mg/l	1
	EC50	96h	Algae or other aquatic plants		400mg/l	1
	Endpoint	Test Duration (hr)	Species		Value	Source
	LC50	96h	Fish		>1000mg/l	2
methyl propyl ketone	EC50	72h	Algae or other aquatic plants		>150mg/l	2
	EC50	48h	Crustacea		>110mg/l	2
	NOEC(ECx)	72h	Algae or other aquatic plants		73.77mg/l	2
	Endpoint	Test Duration (hr)	Species		Value	Source
	NOEC(ECx)	72h	Algae or other aquatic plants		>=100mg/l	2
2-propoxyethanol	EC50	72h	Algae or other aquatic plants		>100mg/l	2
	LC50	96h	Fish		>91.3mg/l	Not Availab
Legend:	Ecotox databas		ECHA Registered Substances - Ecotoxicological Ir C Aquatic Hazard Assessment Data 6. NITE (Jap			

# **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)
propane	LOW	LOW
toluene	LOW (Half-life = 28 days)	LOW (Half-life = 4.33 days)
butane	LOW	LOW
propylene glycol monomethyl ether acetate, alpha-isomer	LOW	LOW

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Ingredient	Persistence: Water/Soil	Persistence: Air
methyl isobutyl ketone	HIGH (Half-life = 7001 days)	LOW (Half-life = 1.9 days)
methyl propyl ketone	LOW	LOW
2-propoxyethanol	LOW	LOW

#### **Bioaccumulative potential**

Ingredient	Bioaccumulation
acetone	LOW (BCF = 0.69)
propane	LOW (LogKOW = 2.36)
toluene	LOW (BCF = 90)
butane	LOW (LogKOW = 2.89)
propylene glycol monomethyl ether acetate, alpha-isomer	LOW (LogKOW = 0.56)
methyl isobutyl ketone	LOW (LogKOW = 1.31)
methyl propyl ketone	LOW (LogKOW = 0.91)
2-propoxyethanol	LOW (LogKOW = 0.0755)

# Mobility in soil

Ingredient	Mobility
acetone	HIGH (KOC = 1.981)
propane	LOW (KOC = 23.74)
toluene	LOW (KOC = 268)
butane	LOW (KOC = 43.79)
propylene glycol monomethyl ether acetate, alpha-isomer	HIGH (KOC = 1.838)
methyl isobutyl ketone	LOW (KOC = 10.91)
methyl propyl ketone	LOW (KOC = 7.059)
2-propoxyethanol	HIGH (KOC = 1)

# **SECTION 13 Disposal considerations**

#### Waste treatment methods

- ▶ DO NOT allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority. Product / Packaging disposal
  - Consult State Land Waste Management Authority for disposal.
  - ▶ Discharge contents of damaged aerosol cans at an approved site.
  - Allow small quantities to evaporate.
  - ► **DO NOT** incinerate or puncture aerosol cans.
  - ▶ Bury residues and emptied aerosol cans at an approved site.

# **SECTION 14 Transport information**

# **Labels Required**



**Marine Pollutant** 

NO

#### Land transport (DOT)

UN number or ID number	1950	
UN proper shipping name	Aerosols, flammable,	(each not exceeding 1 L capacity); Aerosols, flammable, n.o.s. (engine starting fluid) (each not exceeding 1 L capacity)
Transport hazard class(es)		2.1 Not Applicable
Packing group	Not Applicable	
Environmental hazard	Not Applicable	
Special precautions for user	Hazard Label Special provisions	2.1     N82

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Passenger and Cargo Packing Instructions

Passenger and Cargo Maximum Qty / Pack

Passenger and Cargo Limited Quantity Packing Instructions Passenger and Cargo Limited Maximum Qty / Pack

**Toro Apple Red** 

**UN** number 1950 **UN proper shipping name** Aerosols, flammable; Aerosols, flammable (engine starting fluid) ICAO/IATA Class Transport hazard class(es) ICAO / IATA Subrisk Not Applicable ERG Code 10L Packing group Not Applicable **Environmental hazard** Not Applicable Special provisions A145 A167 A802; A1 A145 A167 A802 Cargo Only Packing Instructions 203 Cargo Only Maximum Qty / Pack 150 kg

203; Forbidden

75 kg; Forbidden Y203; Forbidden

30 kg G; Forbidden

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

Special precautions for user

· `	•		
UN number	1950		
UN proper shipping name	AEROSOLS		
Transport hazard class(es)		2.1 Not Applicable	
Packing group	Not Applicable		
Environmental hazard	Not Applicable		
Special precautions for user	EMS Number Special provisions Limited Quantities	F-D, S-U 63 190 277 327 344 381 959 1000 ml	

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

Not Applicable

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

Transport in bulk in accordance with making of Annex V and the miobo code		
Product name	Group	
acetone	Not Available	
propane	Not Available	
toluene	Not Available	
butane	Not Available	
propylene glycol monomethyl ether acetate, alpha-isomer	Not Available	
methyl isobutyl ketone	Not Available	
methyl propyl ketone	Not Available	
2-propoxyethanol	Not Available	

#### Transport in bulk in accordance with the IGC Code

Product name	Ship Type
acetone	Not Available
propane	Not Available
toluene	Not Available
butane	Not Available
propylene glycol monomethyl ether acetate, alpha-isomer	Not Available
methyl isobutyl ketone	Not Available
methyl propyl ketone	Not Available
2-propoxyethanol	Not Available

# **SECTION 15 Regulatory information**

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

acetone is found on the following regulatory lists

Issue Date: 23/12/2022

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US NIOSH Recommended Exposure Limits (RELs)

US TSCA Section 4/12 (b) - Sunset Dates/Status

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US - Massachusetts - Right To Know Listed Chemicals

US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)

US DOE Temporary Emergency Exposure Limits (TEELs)

US Drug Enforcement Administration (DEA) List I and II Regulated Chemicals

US EPA Integrated Risk Information System (IRIS)

propane is found on the following regulatory lists

US - Massachusetts - Right To Know Listed Chemicals

US Department of Homeland Security (DHS) - Chemical Facility Anti-Terrorism

Standards (CFATS) - Chemicals of Interest

US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory US TSCA Chemical Substance Inventory - Interim List of Active Substances

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

toluene 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

US - California Hazardous Air Pollutants Identified as Toxic Air Contaminants

US - California Proposition 65 - Maximum Allowable Dose Levels (MADLs) for Chemicals Causing Reproductive Toxicity

US - California Proposition 65 - Reproductive Toxicity

US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

US - Massachusetts - Right To Know Listed Chemicals

US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)

US Clean Air Act - Hazardous Air Pollutants

US CWA (Clean Water Act) - List of Hazardous Substances

US CWA (Clean Water Act) - Priority Pollutants

US CWA (Clean Water Act) - Toxic Pollutants

US DOE Temporary Emergency Exposure Limits (TEELs)

US Drug Enforcement Administration (DEA) List I and II Regulated Chemicals

US EPA Integrated Risk Information System (IRIS)

US EPCRA Section 313 Chemical List

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-2

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory US TSCA Chemical Substance Inventory - Interim List of Active Substances

butane is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

US - Massachusetts - Right To Know Listed Chemicals

US Department of Homeland Security (DHS) - Chemical Facility Anti-Terrorism Standards (CFATS) - Chemicals of Interest

US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Recommended Exposure Limits (RELs)

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

propylene glycol monomethyl ether acetate, alpha-isomer is found on the following regulatory lists

US - California Hazardous Air Pollutants Identified as Toxic Air Contaminants

US AIHA Workplace Environmental Exposure Levels (WEELs)

US DOE Temporary Emergency Exposure Limits (TEELs)

US EPCRA Section 313 Chemical List

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US Toxicology Excellence for Risk Assessment (TERA) Workplace Environmental Exposure Levels (WEEL)

US TSCA Chemical Substance Inventory - Interim List of Active Substances

methyl isobutyl ketone 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

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

US - California Hazardous Air Pollutants Identified as Toxic Air Contaminants

US - California Proposition 65 - Carcinogens

US - California Proposition 65 - Reproductive Toxicity

US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

US - Massachusetts - Right To Know Listed Chemicals

US Clean Air Act - Hazardous Air Pollutants

US DOE Temporary Emergency Exposure Limits (TEELs)

US Drug Enforcement Administration (DEA) List I and II Regulated Chemicals

US EPA Integrated Risk Information System (IRIS)

US EPCRA Section 313 Chemical List

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory US TSCA Chemical Substance Inventory - Interim List of Active Substances

US TSCA Section 4/12 (b) - Sunset Dates/Status

methyl propyl ketone is found on the following regulatory lists

US - Massachusetts - Right To Know Listed Chemicals

US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

2-propoxyethanol is found on the following regulatory lists

US - California Hazardous Air Pollutants Identified as Toxic Air Contaminants

US Clean Air Act - Hazardous Air Pollutants

US DOE Temporary Emergency Exposure Limits (TEELs)

US EPCRA Section 313 Chemical List

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

#### **Federal Regulations**

# Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Section 311/312 hazard categories

Flammable (Gases, Aerosols, Liquids, or Solids)	Yes
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No

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Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	Yes
Acute toxicity (any route of exposure)	No
Reproductive toxicity	Yes
Skin Corrosion or Irritation	Yes
Respiratory or Skin Sensitization	No
Serious eye damage or eye irritation	
Specific target organ toxicity (single or repeated exposure)	
Aspiration Hazard	
Germ cell mutagenicity	
Simple Asphyxiant	No
Hazards Not Otherwise Classified	

# US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

Name	Reportable Quantity in Pounds (lb)	Reportable Quantity in kg
acetone	5000	2270
toluene	1000	454
methyl isobutyl ketone	5000	2270

#### State Regulations

# US. California Proposition 65



WARNING: This product can expose you to chemicals including methyl isobutyl ketone, which is known to the State of California to cause cancer, and toluene, methyl isobutyl ketone, which are known to the State of California to cause birth defects or other reproductive harm. For more information, go to <a href="https://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>.

#### **National Inventory Status**

National Inventory	Status		
Australia - AIIC / Australia Non-Industrial Use	Yes		
Canada - DSL	Yes		
Canada - NDSL	No (acetone; propane; toluene; butane; propylene glycol monomethyl ether acetate, alpha-isomer; methyl isobutyl ketone; methyl propyl ketone; 2-propoxyethanol)		
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	No (2-propoxyethanol)		
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	23/12/2022
Initial Date	15/12/2015

#### **SDS Version Summary**

Version	Date of Update	Sections Updated
4.1	01/11/2019	One-off system update. NOTE: This may or may not change the GHS classification
5.1	23/12/2022	Classification review due to GHS Revision change.

#### Other information

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Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

#### **Definitions and abbreviations**

PC-TWA: Permissible Concentration-Time Weighted Average

PC-STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit。

IDLH: Immediately Dangerous to Life or Health Concentrations

ES: Exposure Standard

OSF: Odour Safety Factor

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

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

BEI: Biological Exposure Index AIIC: Australian Inventory of Industrial Chemicals

DSL: Domestic Substances List NDSL: Non-Domestic Substances List

IECSC: Inventory of Existing Chemical Substance in China

EINECS: European INventory of Existing Commercial chemical Substances

ELINCS: European List of Notified Chemical Substances

NLP: No-Longer Polymers

ENCS: Existing and New Chemical Substances Inventory

KECI: Korea Existing Chemicals Inventory

NZIoC: New Zealand Inventory of Chemicals

PICCS: Philippine Inventory of Chemicals and Chemical Substances

TSCA: Toxic Substances Control Act TCSI: Taiwan Chemical Substance Inventory INSQ: Inventario Nacional de Sustancias Químicas

NCI: National Chemical Inventory

FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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