

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
SafeWork Australia Approved Code of Practice about the preparation of safety data sheets for hazardous chemicals (July 2018),
which is an approved code of practice under section 274 of the Work Health and Safety Act

Issuing Date 12-Jan-2022

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Revision Number 1

Section 1: Identification

Product identifier

Product Name Trio Quizalofop 200 EC Herbicide

Product Code(s) APVMA Registration #90988

Other means of identification

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Solvent naphtha, petroleum, heavy aromatic)

Pure substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Recommended use
Herbicide
Consumer use
Professional use

Uses advised against

Details of manufacturer or importer

Supplier

CTS Chemicals Pty Ltd.
Manning Buildings
135 High Street Mall
Fremantle WA
6160 Australia
1800 749 140

For further information, please contact

E-mail address regulatory@ctschemical.com.au

Emergency telephone number

Emergency telephone number CHEMTREC (Australia): +61-290372994

Section 2: Hazard(s) identification

GHS Classification

Flammable liquids	Category 4
Aspiration hazard	Category 1
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Carcinogenicity	Category 2
Reproductive toxicity	Category 1B

Label elements

Skull and crossbones Exclamation mark
Health hazard



Signal word
Danger

Hazard statements

Combustible liquid
Causes skin irritation
Causes serious eye irritation
Suspected of causing cancer
May damage fertility or the unborn child
May be fatal if swallowed and enters airways

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wear protective gloves/protective clothing/eye protection/face protection
Wash face, hands and any exposed skin thoroughly after handling
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of water and soap
If skin irritation occurs: Get medical advice/attention
Take off all contaminated clothing and wash it before reuse
IF SWALLOWED: Immediately call a POISON CENTER or doctor
Do NOT induce vomiting
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other hazards which do not result in classification

May be harmful if swallowed.
May be harmful in contact with skin.
Combustible liquid.
Toxic to aquatic life.
Toxic to aquatic life with long lasting effects.
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read carefully and follow all instructions.

Section 3: Composition/information on ingredients

Chemical name	CAS No	Weight-%
Solvent naphtha, petroleum, heavy aromatic	64742-94-5	50 - 60
Quizalofop-p-ethyl	100646-51-3	20 - 30
1-Methyl-2-pyrrolidone	872-50-4	10 - 20
Benzenesulfonic acid, 4-C10-14-alkyl derivs.,	90194-26-6	1 - 5

calcium salts		
2-ethylhexanol	104-76-7	1 - 5
Non-hazardous ingredients	Proprietary	Balance

Section 4: First aid measures

Description of first aid measures

General advice	IF exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Emergency telephone number	Poisons Information Centre, Australia: 13 11 26
Inhalation	Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical advice/attention. Delayed pulmonary edema may occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.
Ingestion	ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms	Difficulty in breathing. Coughing and/ or wheezing. Dizziness. May cause redness and tearing of the eyes. Burning sensation.
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Indication of any immediate medical attention and special treatment needed

Note to doctors	Because of the danger of aspiration, emesis or gastric lavage should not be used unless the risk is justified by the presence of additional toxic substances.
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Section 5: Firefighting measures

Suitable Extinguishing Media

Suitable Extinguishing Media	Dry chemical, CO2, water spray or regular foam.
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Unsuitable extinguishing media	None known based on information supplied.
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Specific hazards arising from the chemical

Specific hazards arising from the chemical	Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.
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Hazardous combustion products	Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
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Special protective actions for fire-fighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Hazchem code •3Z

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Keep out of drains, sewers, ditches and waterways. See Section 12 for additional Ecological Information. Avoid release to the environment.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dyke far ahead of liquid spill for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.

Precautions to prevent secondary hazards

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Section 7: Handling and storage

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Do not breathe vapour or mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Use with local exhaust ventilation. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash it before reuse.

General hygiene considerations Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children. Store away from other materials.

Incompatible materials Strong oxidising agents. Nitric acid. Sulfuric acid.

Section 8: Exposure controls and personal protection

Control parameters

Exposure Limits

Chemical name	Australia	New Zealand	ACGIH TLV
1-Methyl-2-pyrrolidone 872-50-4	TWA: 25 ppm TWA: 103 mg/m ³ STEL: 75 ppm STEL: 309 mg/m ³	TWA: 25 ppm TWA: 103 mg/m ³ STEL: 75 ppm STEL: 309 mg/m ³ Skin	-

Chemical name	European Union	United Kingdom	Germany MAK
1-Methyl-2-pyrrolidone 872-50-4	TWA: 10 ppm TWA: 40 mg/m ³ STEL: 20 ppm STEL: 80 mg/m ³ *	TWA: 10 ppm TWA: 40 mg/m ³ STEL: 20 ppm STEL: 80 mg/m ³ Sk*	TWA: 20 ppm TWA: 82 mg/m ³ Peak: 40 ppm Peak: 164 mg/m ³ *
2-ethylhexanol 104-76-7	TWA: 5.4 mg/m ³ TWA: 1 ppm	TWA: 1 ppm TWA: 5.4 mg/m ³ STEL: 3 ppm STEL: 16.2 mg/m ³	TWA: 10 ppm TWA: 54 mg/m ³ Peak: 10 ppm Peak: 54 mg/m ³

Biological occupational exposure limits

Chemical name	Australia	ACGIH	European Union
1-Methyl-2-pyrrolidone 872-50-4	-	100 mg/L - urine (5-Hydroxy-N-methyl-2-pyrrolidone) - end of shift	-

Appropriate engineering controls

Engineering controls	Showers Eyewash stations Ventilation systems.
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Individual protection measures, such as personal protective equipment

Eye/face protection	Tight sealing safety goggles.
Skin and body protection	Wear suitable protective clothing. Long sleeved clothing.
Hand protection	Wear suitable gloves. Impervious gloves.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
Environmental exposure controls	Avoid release to the environment.
Thermal hazards	No information available.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear, Straw-coloured liquid
Physical state	Liquid
Colour	Straw-coloured

Odour	Characteristic solvent	
Odour threshold	No information available	
<u>Values</u>		<u>Remarks • Method</u>
pH		No data available
Melting point / freezing point		No data available
Initial boiling point and boiling range		No data available
Flash point	> 63 °C	
Evaporation rate		No data available
Flammability		No data available
Flammability Limit in Air		
Upper flammability or explosive limits		No data available
Lower flammability or explosive limits		No data available
Vapour pressure		No data available
Vapour density		No data available
Relative density	1	
Water solubility		No data available
Solubility(ies)		No data available
Partition coefficient		No data available
Autoignition temperature		No data available
Decomposition temperature		No data available
Kinematic viscosity		No data available
Dynamic viscosity		No data available
Explosive properties	No information available.	
Oxidising properties	No information available.	
<u>Other information</u>		
Softening point	No information available	
Molecular weight	No information available	
VOC Content (%)	No information available	
Liquid Density	No information available	
Bulk density	No information available	
Particle characteristics	No information available	

Section 10: Stability and reactivity

Reactivity

Reactivity None under normal use conditions.

Chemical stability

Stability Stable under normal conditions.

Explosion data
Sensitivity to mechanical impact None.

Sensitivity to static discharge Yes.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Conditions to avoid

Conditions to avoid Heat, flames and sparks.

Incompatible materials

Incompatible materials Strong oxidising agents. Nitric acid. Sulfuric acid.

Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

Section 11: Toxicological information

Acute toxicity

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract.
Eye contact	Specific test data for the substance or mixture is not available. May cause irritation. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.
Skin contact	Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components). Repeated exposure may cause skin dryness or cracking. May be harmful in contact with skin.
Ingestion	Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May be harmful if swallowed.

Symptoms Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Redness. May cause redness and tearing of the eyes.

Numerical measures of toxicity - Product Information

Numerical measures of toxicity

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Solvent naphtha, petroleum, heavy aromatic	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 590 mg/m ³ (Rat) 4 h
Quizalofop-p-ethyl	= 1182 mg/kg (Rat)	-	-
1-Methyl-2-pyrrolidone	= 3914 mg/kg (Rat)	= 8 g/kg (Rabbit)	> 5.1 mg/L (Rat) 4 h
2-ethylhexanol	= 3730 mg/kg (Rat)	= 1980 mg/kg (Rabbit)	> 227 ppm (Rat) 6 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Classification based on data available for ingredients. Irritating to skin.
Serious eye damage/eye irritation	Classification based on data available for ingredients. Causes serious eye irritation.
Respiratory or skin sensitisation	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	Contains a known or suspected carcinogen. Classification based on data available for

ingredients. Suspected of causing cancer.

Reproductive toxicity Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard May be fatal if swallowed and enters airways.

Section 12: Ecological information

Ecotoxicity

Aquatic ecotoxicity Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Solvent naphtha, petroleum, heavy aromatic	-	LC50: =19mg/L (96h, Pimephales promelas) LC50: =2.34mg/L (96h, Oncorhynchus mykiss) LC50: =1740mg/L (96h, Lepomis macrochirus) LC50: =45mg/L (96h, Pimephales promelas) LC50: =41mg/L (96h, Pimephales promelas)	-	EC50: =0.95mg/L (48h, Daphnia magna)
1-Methyl-2-pyrrolidone	EC50: >500mg/L (72h, Desmodesmus subspicatus)	LC50: =1072mg/L (96h, Pimephales promelas) LC50: =1400mg/L (96h, Poecilia reticulata) LC50: =832mg/L (96h, Lepomis macrochirus)	-	EC50: =4897mg/L (48h, Daphnia magna)
2-ethylhexanol	EC50: =11.5mg/L (72h, Desmodesmus subspicatus)	LC50: 32 - 37mg/L (96h, Oncorhynchus mykiss) LC50: >7.5mg/L (96h, Oncorhynchus mykiss) LC50: 27 - 29.5mg/L (96h, Pimephales promelas) LC50: =29.7mg/L (96h, Pimephales promelas) LC50: 10.0 - 33.0mg/L (96h, Lepomis macrochirus)	-	EC50: =39mg/L (48h, Daphnia magna)

Terrestrial ecotoxicity

Chemical name	Earthworm	Avian	Honeybees
Solvent naphtha, petroleum, heavy aromatic	-	Acute Oral Toxicity: LD50 > 2250 mg/kg (Colinus virginianus) Source: IUCLID Dietary Toxicity: LC50 > 6500 ppm (Colinus virginianus 5)	-

Chemical name	Earthworm	Avian Days) Source: IUCLID	Honeybees

Persistence and degradability

Persistence and degradability No information available.

Bioaccumulative potential**Bioaccumulation****Component Information**

Chemical name	Partition coefficient
Solvent naphtha, petroleum, heavy aromatic	6.1
1-Methyl-2-pyrrolidone	-0.46
2-ethylhexanol	3.1

Mobility

Mobility No information available.

Other adverse effects

Other adverse effects No information available.

Section 13: Disposal considerations**Waste treatment methods**

Waste from residues/unused products Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

See section 8 for more information

Section 14: Transport information**Not Regulated / Non-Hazardous**

Shipment by ground via road or rail within Australia is not regulated in IBCs or packagings not exceeding 500 kg(L) per Australian Special Provision AU01.

ADG

UN number	N/A
Proper shipping name	N/A
Transport hazard class(es)	N/A
Packing group	N/A
Environmental hazard	N/A
Special Provisions	N/A
Description	N/A
Limited quantity (LQ)	N/A
Hazchem code	N/A

IATA

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substances, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III

ERG Code

9L

Special Provisions

A97, A158, A197

Description

UN3082, Environmentally hazardous substances, liquid, n.o.s. (Solvent naphtha,

petroleum, heavy aromatic), 9, III

IMDG

UN number or ID number UN3082
UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.
Transport hazard class(es) 9
Packing group III
EmS-No F-A, S-F
Special Provisions 274, 335, 969
Marine pollutant P
Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Solvent naphtha, petroleum, heavy aromatic), 9, III, Marine pollutant

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

No information available

Section 15: Regulatory information**Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Australia**

See section 8 for national exposure control parameters

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

No poisons schedule number allocated

Australian Pesticides and Veterinary Medicines Authority (APVMA)**APVMA Registered Chemical Number** 90988**Australian Industrial Chemicals Introduction Scheme (AICIS)**

Chemical name	Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information
Solvent naphtha, petroleum, heavy aromatic - 64742-94-5	Present	-
1-Methyl-2-pyrrolidone - 872-50-4	Contact supplier for inventory compliance status	-
Benzenesulfonic acid, 4-C10-14-alkyl derivs., calcium salts - 90194-26-6	Present	-
2-ethylhexanol - 104-76-7	Present	-

Illicit Drug Precursors/Reagents

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

National pollutant inventory

Subject to reporting requirement

Chemical name	National pollutant inventory
Solvent naphtha, petroleum, heavy aromatic - 64742-94-5	20 MW Threshold category 2b total 60000 MWH Threshold category 2b total 1 tonne/h Threshold category 2a total 25 tonne/yr Threshold category 1a total 400 tonne/yr Threshold category 2a total 2000 tonne/yr Threshold category 2b total

1-Methyl-2-pyrrolidone - 872-50-4	20 MW Threshold category 2b total 60000 MWH Threshold category 2b total 1 tonne/h Threshold category 2a total 25 tonne/yr Threshold category 1a total 400 tonne/yr Threshold category 2a total 2000 tonne/yr Threshold category 2b total
2-ethylhexanol - 104-76-7	20 MW Threshold category 2b total 60000 MWH Threshold category 2b total 1 tonne/h Threshold category 2a total 25 tonne/yr Threshold category 1a total 400 tonne/yr Threshold category 2a total 2000 tonne/yr Threshold category 2b total

International Inventories

Contact supplier for inventory compliance status

International Regulations**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable**The Stockholm Convention on Persistent Organic Pollutants** Not applicable**The Rotterdam Convention** Not applicable**Section 16: Any other relevant information****Issuing Date** 12-Jan-2022**Revision Date** 12-Jan-2022**Revision Note** Initial Release.**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AEGL(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 Japan GHS Classification
 Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 Australian Industrial Chemicals Introduction Scheme (AICIS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet