MSDS ATTACHMENT

PLEASE ATTACH THIS COMPLETED SHEET TO THE MSDS FOR :

PRODUCT : QUAKER HOUGHTON HOCUT 795-AU

DATE :
(MSDS date) 21.09.2019

1. Manufacturer/Supplier :

PPS Industries Limited
86 Hugo Johnston Drive, Auckland
New Zealand
P.O.Box 12823, Penrose, Auckland 1642
Phone : 64 9 579-1001
Facsimile : 64 9 579-9497
Emergency Phone : 0800 657-894
Website: www.ppsindustries.co.nz

Emergency Information :

National Poison Centre	0800 764-766
Chemcall 24/7 Emergency Response Service :	0800 243-622

13. Disposal Considerations :

Product

Recommendation - Consult local or national regulations to ensure proper disposal.

Packaging

Disposal must be made according to official regulations.

16. Other Information :

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

SAFETY DATA SHEET

Revision Date 09-21-2019 **Version** 2

SECTION 1: IDENTIFICATION

Product identifier

Product Code(s) 41021787-M
Product Name HOCUT 795-AU

Other means of identification

UN Number UN2735

Recommended use of the chemical and restrictions on use

Recommended Use Cutting fluid
Uses advised against Any other purpose.

Suppliers name, address and phone number

Manufacturer, Importer, Supplier

Houghton Australia Pty. Ltd.
287 Wickham Road
Moorabbin, Victoria
Australia, 3189
+61 1300 736 642

Emergency telephone number

For further information, please contact: ProductStewardship@houghtonintl.com

Emergency Telephone 3E Company (+)1 760 476 3960 (Code 333938)
Australia: (+)61 1 800 686 951
Australia (+)61 280 363 166
New Zealand: (+)64 800 451719

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification

Skin corrosion/irritation	Category 1 Sub-category B - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)

Label elements

Signal word
DANGER

Hazard statements
H314 - Causes severe skin burns and eye damage

Precautionary Statements - Prevention
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Precautionary Statements - Response
Immediately call a POISON CENTER or doctor/physician
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
Skin
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a POISON CENTER or doctor/physician
Ingestion
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
Precautionary Statements - Storage
Store locked up
Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Other hazards
May be harmful if swallowed
Toxic to aquatic life with long lasting effects

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture. Health hazard information is based on its ingredients

Chemical name	CAS No	Weight-%
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)	-	25% - 50%
Neutralised Dicyclohexylamine	101-83-7*	2.5% - 10%
1-Aminopropan-2-ol	78-96-6	2.5% - 10%
2,2',2"-Nitrilotriethanol	102-71-6	1% - 2.5%
Neutralised 1-Aminopropan-2-ol	78-96-6*	1% - 2.5%
(Z)-Octadec-9-enylamine, ethoxylated	26635-93-8	1% - 2.5%
2-Aminoethanol	141-43-5	1% - 2.5%
Neutralised boric acid	10043-35-3*	0% - 1%
2,6-Di-tert-butyl-p-cresol	128-37-0	0% - 1%

The remaining composition is a mixture of non-classified ingredients or additives below the threshold for disclosure

Product containing mineral oil with less than 3% DMSO extract as measured by IP 346. See Section 15 for additional information on base oils.

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice Immediate medical attention is required. Do not get in eyes, on skin, or on clothing.

Inhalation Remove to fresh air.

Skin contact	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. Immediate medical attention is required.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Seek immediate medical attention/advice.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice.
Protection of First-aiders	Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

Most important symptoms and effects, both acute and delayed

Symptoms	Causes burns. blistering.

Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media
Use CO2, dry chemical, or foam. Water spray or fog. Cool containers / tanks with water spray.

Extinguishing media which shall not be used for safety reasons
Do not use a solid water stream as it may scatter and spread fire

Specific hazards arising from the chemical

Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke)

Hazardous decomposition products
Incomplete combustion and thermolysis produces potentially toxic gases such as carbon monoxide and carbon dioxide

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 emergency action code •2X.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Evacuate personnel to safe areas.
For emergency responders	Use personal protection recommended in Section 8.

Environmental precautions
See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Pick up and transfer to properly labeled containers.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Keep away from open flames, hot surfaces and sources of ignition.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition.

Recommended Shelf Life
Shelf life 12 months

Incompatible materials
None known based on information supplied.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical name	Australia	New Zealand	New Zealand - Biological Exposure Indices (BEI)
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)		TWA: 5 mg/m³ STEL: 10 mg/m³	
2,2',2"-Nitrilotriethanol	TWA: 5 mg/m³ (+)	TWA: 5 mg/m³	
2-Aminoethanol	TWA: 3 ppm TWA: 7.5 mg/m³ STEL: 6 ppm STEL: 15 mg/m³	TWA: 3 ppm TWA: 7.5 mg/m³ STEL: 6 ppm STEL: 15 mg/m³	
2,6-Di-tert-butyl-p-cresol	TWA: 10 mg/m³	TWA: 10 mg/m³	

Hydrocarbon solvent vapor mixtures which do not have substance specific occupational exposure limits may be evaluated by the Reciprocal Calculation Procedure (RCP) which assigns a recommended occupational exposure limit based on the mass composition and hydrocarbon group guidance values (GGVs). Applicable recommended occupational exposure limits are shown in the table below.

Chemical name	RCP OEL	Manufacturer
Distillates (petroleum), hydrotreated middle 64742-46-7	RCP: TWA 1200 mg/m³ 143ppm	

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Tightly fitting safety goggles. If splashes are likely to occur, wear:. Face-shield.

Skin and body protection Wear protective gloves/clothing.

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	No information available.
Hygiene measures	Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Regular cleaning of equipment, work area and clothing is recommended. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.
Thermal hazards	None under normal use conditions.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid	**Appearance**	clear amber
Odor	Mild	**Odor threshold**	Not Determined

Property	Values	Remarks
pH	9.6	@5%
Melting point / freezing point	Not Determined	
Boiling point / boiling range	Not Determined	
Flash point	> 150 °C / > 302 °F	
Evaporation rate	Not Determined	
Flammability (solid, gas)	Not Determined	
Flammability Limit in Air		
Upper flammability limit:	Not Determined	
Lower flammability limit:	Not Determined	
Vapor pressure	Not Determined	
Vapor density	Not Determined	
Relative density	0.95	g/cm3 @15.5°C
Solubility(ies)	Emulsifies	
Partition coefficient	Not Determined	
Autoignition temperature	Not Determined	
Decomposition temperature	Not Determined	
Kinematic viscosity	> 20.6 cSt @ 40 °C	
Explosive properties	Not applicable	
Oxidizing Properties	Not applicable	

Other Information

Viscosity, kinematic (100°C)	Not Determined
Pour Point	Not Determined
VOC Content (ASTM E-1868-10)	Not Determined
VOC content	Not Determined

SECTION 10: STABILITY AND REACTIVITY

Reactivity

None under normal use conditions.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

Incompatible materials

None known based on information supplied.

Hazardous decomposition products

Incomplete combustion and thermolysis produces potentially toxic gases such as carbon monoxide and carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Information on likely routes of exposure

Product Information - Principle Routes of Exposure

Inhalation	Based on available data, the classification criteria are not met.
Eye contact	May result in permanent damage including blindness.
Skin contact	Corrosive.
Ingestion	Ingestion causes burns of the upper digestive and respiratory tracts.
Symptoms	Causes burns. May result in permanent damage including blindness.

Numerical measures of toxicity - Product Information

ATEmix (oral)	4,836.00 mg/kg
ATEmix (dermal)	19,919.00 mg/kg
ATEmix (inhalation-dust/mist)	109.70 mg/l

Acute toxicity - Product Information

Product does not present an acute toxicity hazard based on known information

Acute toxicity - Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)	>2000 mg/kg	>2000 mg/kg	
1-Aminopropan-2-ol	2098 mg/kg (Rat)	1851 mg/kg (Rabbit)	
2,2',2"-Nitrilotriethanol		> 16 mL/kg (Rat) > 2000 mg/kg (Rabbit)	
Neutralised 1-Aminopropan-2-ol	2098 mg/kg (Rat)	1851 mg/kg (Rabbit)	
2-Aminoethanol	1720 mg/kg (Rat)	= 1 mL/kg (Rabbit) = 1025 mg/kg (Rabbit)	
Neutralised boric acid	3500 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 0.16 mg/L (Rat) 4 h
2,6-Di-tert-butyl-p-cresol	5000 mg/kg (Rat)	5000 mg/kg (Rabbit)	

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

Skin corrosion/irritation Corrosive. Category 1B.

Serious eye damage/eye irritation	Causes severe eye damage.
Respiratory or skin sensitization	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
Specific target organ systemic toxicity (single exposure)	Based on available data, the classification criteria are not met.
Specific target organ systemic toxicity (repeated exposure)	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.
Exposure levels	See section 8 for more information
Interactive effects	None known

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Crustacea
Neutralised Dicyclohexylamine		62: 96 h Brachydanio rerio mg/L LC50 static	
1-Aminopropan-2-ol	32.7: 72 h Scenedesmus subspicatus mg/L EC50	2520: 96 h Pimephales promelas mg/L LC50 210: 96 h Carassius auratus mg/L LC50 215 - 464: 96 h Leuciscus idus mg/L LC50	108.82: 48 h Daphnia magna mg/L EC50
2,2',2"-Nitrilotriethanol	216: 72 h Desmodesmus subspicatus mg/L EC50 169: 96 h Desmodesmus subspicatus mg/L EC50	10600-13000: 96 h Pimephales promelas mg/L LC50 flow-through 1000: 96 h Pimephales promelas mg/L LC50 static 450-1000: 96 h Lepomis macrochirus mg/L LC50 static	1386: 24 h Daphnia magna mg/L EC50
Neutralised 1-Aminopropan-2-ol	32.7: 72 h Scenedesmus subspicatus mg/L EC50	2520: 96 h Pimephales promelas mg/L LC50 210: 96 h Carassius auratus mg/L LC50 215 - 464: 96 h Leuciscus idus mg/L LC50	108.82: 48 h Daphnia magna mg/L EC50
(Z)-Octadec-9-enylamine, ethoxylated			0.1 - 1: 48 h Daphnia magna mg/L EC50
2-Aminoethanol	2.8: 72 h Pseudokirchneriella subcapitata mg/L EC50	227: 96 h Pimephales promelas mg/L LC50 flow-through 3684: 96 h Brachydanio rerio mg/L LC50 static 300 - 1000: 96 h Lepomis macrochirus mg/L LC50 static 114 - 196: 96 h Oncorhynchus mykiss mg/L LC50 static 200: 96 h Oncorhynchus mykiss mg/L LC50	65: 48 h Daphnia magna mg/L EC50

		flow-through	
Neutralised boric acid	>28: 72 h Selenastrum capricornutum mg/L EC50	1020: 72 h Carassius auratus mg/L LC50 flow-through 627: 96 h Oncorhynchus tschawytscha mg/L LC50	115 - 153: 48 h Daphnia magna mg/L EC50
2,6-Di-tert-butyl-p-cresol	6: 72 h Pseudokirchneriella subcapitata mg/L EC50 0.42: 72 h Desmodesmus subspicatus mg/L EC50	5: 48 h Oryzias latipes mg/L LC50	

Persistence and degradability

The product is not readily biodegradable, but it can be degraded by micro-organisms, it is regarded as being inherently biodegradable.

Bioaccumulative potential

Chemical name	Partition coefficient
Neutralised Dicyclohexylamine	3.5
1-Aminopropan-2-ol	-0.94
2,2',2"-Nitrilotriethanol	-2.53
Neutralised 1-Aminopropan-2-ol	-0.94
2-Aminoethanol	-1.91
Neutralised boric acid	-0.757
2,6-Di-tert-butyl-p-cresol	4.17

Mobility

No information available

Other adverse effects

No information available

SECTION 13: DISPOSAL CONSIDERATIONS

Safe handling and disposal methods

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Disposal of any contaminated packaging

Do not reuse empty containers.

Environmental regulations

No information available

SECTION 14: TRANSPORT INFORMATION

ADG

UN Number	UN2735
Proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S. ( )
Hazard Class	8
Packing Group	II
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable
Special precautions for users	No information available
Hazchem emergency action code	•2X
Description	UN2735, AMINES, LIQUID, CORROSIVE, N.O.S. (1-AMINOPROPAN-2-OL,

2-AMINOETHANOL), 8, II

IMDG

UN/ID no	UN2735
Proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S. (1-AMINOPROPAN-2-OL, 2-AMINOETHANOL)
Hazard Class	8
Packing Group	II
EmS-No	F-A, S-B
Vessel Stowage Location Code	A
Marine pollutant	This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO
Description	UN2735, AMINES, LIQUID, CORROSIVE, N.O.S. (1-AMINOPROPAN-2-OL, 2-AMINOETHANOL), 8, II, Marine pollutant

IATA

UN/ID no	UN2735
Proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S. (1-AMINOPROPAN-2-OL, 2-AMINOETHANOL)
Hazard Class	8
Packing Group	II
ERG Code	8L
Description	UN2735, AMINES, LIQUID, CORROSIVE, N.O.S. (1-AMINOPROPAN-2-OL, 2-AMINOETHANOL), 8, II

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 Uniform Scheduling of Medicines and Poisons (SUSMP)
No poisons schedule number allocated

New Zealand

HSNO Hazard Classification:
6.1E - Substances that are acutely toxic
8.2B - Substances that are corrosive to dermal tissue
8.3A - Substances that are corrosive to ocular tissue
9.1B - Substances that are ecotoxic in the aquatic environment

HSNO Approval Number:

HSNO Approval Number: HSR002609
HSNO Group Standard: Metal Industry Products (Corrosive) GROUP STANDARD 2017.

International Inventories

Inventory information may be utilizing alternative CAS#s or exemptions beyond those stated within this document For further information, please contact: ProductStewardship@houghtonintl.com

TSCA	Complies
DSL	Complies
AICS	Complies
PICCS	Does not Comply
KECL	Does not Comply

IECSC	Complies
ENCS	Complies
TCSI	Complies
NZIoC	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
AICS - Australian Inventory of Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
ENCS - Japan Existing and New Chemical Substances
TCSI - Taiwan National Existing Chemical Inventory
NZIoC - New Zealand Inventory of Chemicals

International Regulations

Ozone-depleting substances (ODS) Not applicable

Persistent Organic Pollutants Not applicable

Chemicals Subject to Prior Informed Consent (PIC) Not applicable

Other Information

The highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C) contains one or more substance with the following CAS/EC numbers/REACH registration numbers:

Chemical name	CAS No
Distillates (petroleum), straight-run middle	64741-44-2
Distillates (petroleum), heavy hydrocracked	64741-76-0
Distillates (petroleum), solvent-refined heavy paraffinic	64741-88-4
Distillates (petroleum), solvent-refined light paraffinic	64741-89-5
Residual oils (petroleum), solvent deasphalted	64741-95-3
Distillates (petroleum), solvent-refined heavy naphthenic	64741-96-4
Residual oils (petroleum), solvent-refined	64742-01-4
Distillates (petroleum), hydrotreated middle	64742-46-7
Distillates (petroleum), hydrotreated middle	64742-46-7
Distillates (petroleum), hydrotreated light	64742-47-8
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6
Distillates(petroleum),hydrotreatedheavyparaffinic	64742-54-7
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8
Distillates, petroleum, solvent-dewaxed light paraffinic	64742-56-9
Distillates (petroleum), solvent-dewaxed light paraffinic	64742-56-9
Residual oils (petroleum), hydrotreated	64742-57-0
Lubricating oils (petroleum), hydrotreated spent	64742-58-1
Residual oils (petroleum), solvent-dewaxed	64742-62-7
Distillates (petroleum), solvent-dewaxed heavy, paraffinic	64742-65-0
Paraffin oils (petroleum), catalytic dewaxed light	64742-71-8
Dec-1-ene, homopolymer, hydrogenated	68037-01-4
Lubricating oils (petroleum), C>25, hydrotreated bright stock-based	72623-83-7
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, high-viscosity	72623-85-9
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0
Lubricating oils (petroleum), C20-C50, hydrotreated neutral oil-based	72623-87-1
Lubricating oils	74869-22-0
White mineral oil (petroleum)	8042-47-5
C18-C50 branched, cyclic and linear hydrocarbons – Distillates	848301-69-9
Hydrocarbons, C14-C19, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE

SECTION 16: OTHER INFORMATION

Revision Date	09-21-2019
Revision Note	This SDS has been revised in the following section(s), Company Logo.

Key or legend to abbreviations and acronyms used in the safety data sheet

TWA	Time weighted average	STEL	Short term exposure limit
Ceiling	Maximum limit value:	(s) - Skin	Skin designation
+	Sensitizers	C	Carcinogen

STOT SE - Specific target organ systemic toxicity (Single exposure)
STOT RE - Specific target organ systemic toxicity (repeated exposure)
VOC - Volatile organic compounds

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