1. Product and Company Identification

1.1 PRODUCT NAME: EQUUS FERROCLEAN

1.2 USE OF PRODUCT Removes surface rust from ferrous metals.

1.3 SUPPLIER:

Equus Industries Ltd
Sheffield Street
Riverlands Industrial Estate
Blenheim, Marlborough, New Zealand
Telephone: +64 3 578 0214
Email: admin@equus.co.nz

1.4 EMERGENCY CONTACT:

National Poison Centre
Telephone: 0800 764 766

Information about Safety Data Sheet: Telephone: +64 3 578 0214 8:00am – 6:00pm Mon – Fri

1.5 DATE OF PREPARATION: 13 September 2022

2. Hazards Identification

2.1 Statement of Hazard Nature:
Classified as hazardous according to New Zealand Hazardous Substances (minimum degrees of hazard) Regulations 2020

2.2 DG Status:
Not classified as a Dangerous Good under NZ 5433:2012 Transport of Dangerous Goods on land.

2.3 Hazard Classification:

Class and GHS Classification		Hazard Statement
Acute Toxicity (oral)	Cat 4	H302 - Harmful if swallowed
Skin Irritation	Cat 3	H316 - Causes mild skin irritation
Eye Damage/Irritation	Cat 1	H318 - Causes serious eye damage.
Aquatic Toxicity (oral)	Cat 2	H401 - Toxic to aquatic life

2.4 Signal Word and Pictograms
Danger

2.5 Preventative Statements:

P264	Wash skin thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product
P280	Wear protective gloves/protective clothing/eye protection/face protection
P273	Avoid release to the environment.

3. Composition/Information on Ingredients

3.1 Hazardous Components

This product is a preparation.

CAS NO.	COMPONENT	CONCENTRATION	CLASSIFICATION		
77-92-9	2-hydroxy-1,2,3 propanetricarboxylic acid	>10 - <30	Acute toxicity (Dermal) Skin Irritation Eye Irritation	Cat 5 Cat 3 Cat 2	H313- May be harmful in contact with skin. H316- Causes mild skin irritation H319- Causes serious eye irritation
84122-50-6	Alcohols, c12-c14-secondary, ethoxylated	>0.5 - <1.5	Acute toxicity (Oral) Eye damage/irritation Aquatic toxicity - Acute	Cat 4 Cat 1 Cat 2	H301- Harmful if swallowed H318- Causes serious eye damage. H401- Toxic to aquatic life

4. First Aid Measures

4.1 After Inhalation:

Remove person to fresh air.

4.2 After Skin Contact:

Wash with soap and water as a precaution. If skin irritation develops, consult a doctor.

4.3 After Eye Contact:

Rinse with plenty of water for at least 15 minutes, while holding eyelid open. If eye irritation persists, consult a doctor.

4.4 After Ingestion:

Drink 1 or 2 glasses of water. Consult a doctor if necessary. Never give anything by mouth to an unconscious person.

5. Fire Fighting Measures

5.1 Suitable Extinguishing Media:

Use extinguishing media appropriate for surrounding fire.

5.2 Protective Equipment:

Wear self contained breathing apparatus and protective suit.

5.3 Specific Hazards:

Not applicable

5.4 Combustion Products:

Carbon monoxide, carbon dioxide, fumes, and smoke.

6. Accidental Release Measures

6.1 Preliminary Action and Precautions:

6.1.1 Use personal protective equipment.

6.1.2 Evacuate all personnel immediately.

6.1.3 Material can create slippery conditions.

6.1.4 Contain spills immediately with inert materials (e.g., sand, earth etc.)

6.1.5 Transfer liquids and solid diking material to suitable containers for recovery or disposal.

6.1.6 Keep spills and cleaning run off from entering stormwater systems, drains and open bodies of water.

7. Handling and Storage

7.1 Handling:

7.1.1 Avoid contact with eyes, skin, and clothing.

7.1.2 Wash hands thoroughly after handling.

7.1.3 Keep containers tightly closed when not in use.

7.1.4 Do not breathe vapours, mist, or gas.

7.2 Storage:

7.2.1 Store in a well ventilated space.

7.2.2 Keep containers tightly closed at all times.

8. Exposure Controls and Personal Protection Equipment

8.1 Exposure Limits:

No values assigned for this specific material.

8.2 Exposure Controls:

8.2.1 Exposure Controls in the Workplace:

Use only in areas provided with appropriate exhaust ventilation.

8.2.2 Personal Protection Equipment:

Respiratory Protection – Not generally required. Use certified respiratory protection equipment when respiratory risk cannot be avoided, particularly if spraying.

Hand Protection – Recommendation: Barrier cream or suitable gloves, such as neoprene.

Eye Protection – Goggles or safety glasses with side shields compatible with any respiratory equipment employed.

Body Protection - Use suitable protective clothing.

9. Physical and Chemical Properties

9.1 General Information:

Physical State/Form	Gel
Colour	Clear
Odor	Odorless
Odour Threshold	Not applicable
pH	ca.1.7 at 100g/ℓ at 20°C (2-hydroxy-1,2,3 propane tricarboxylic acid)
Melting point/freezing point:	<0°C
Initial boiling point and boiling range:	>100°C
Flash Point:	Not applicable
Evaporation rate:	No data available
Flammability (solid,gas):	Not applicable
Upper/lower flammability or explosive limits	Not applicable
Vapour pressure	No data available
Vapour density	No data available
Relative density	1.10
Water Solubility (ies)	Soluble
Water solubility of ingredients	All Soluble
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Brookfield No.7@ 50rpm,10,000cps @20°C

10. Stability and Reaction

10.1 General Information:
This product is stable, and no hazardous reactions are known.

10.2 Conditions to Avoid:
There are no known conditions which should be avoided.

10.3 Material to Avoid:
There are no known materials which should be avoided.

10.4 Hazardous Decomposition Products:
None expected when material properly handled and stored. Thermal decomposition see section 5.

11. Toxicological Information

11.1 *No toxicological data is available for this product. Refer to component data below.*

11.2 Components Influencing Toxicology:

11.2.1 <u>2-hydroxy-1,2,3 propane tricarboxylic acid</u>

Acute Toxicity

Oral: LD50 Rat (male):	11,700mg/kg
Dermal: LD50 Rat (male and female):	>2000mg/kg
Inhalation:	No data available

Aspiration Hazard
No data available

Respiratory Irritation
No data available

Skin Corrosion/Irritation
Rabbit: no skin irritation 4hr

Serious Eye Damage / Irritation
Rabbit: severe irritations

Respiratory or Skin Sensitisation
No data available

Germ Cell Mutagenicity
Ames Test: Salmonella typhimurium: with or without metabolic activation.
Result: Negative
Chromosome aberration test: Rat. Cell type: bone marrow. Application route: Oral
Result: Negative

Carcinogenicity
No data available.

Reproductive Toxicity
No data available

Specific Organ Toxicity (Single exposure)
Inhalation – may cause respiratory irritation.

Specific Organ toxicity (Repeated exposure)
No data available

Additional Information
Repeated dose toxicity – Rat (male and female) – Oral-10d
NOAEL (No observed adverse effect level) – 4,000mg/kg

11.2.2 Alcohols, C12-C14-secondary, ethoxylated

Acute Toxicity

Oral LD50 Rat:	1800mg/kg
Dermal LD50 Rabbit:	>2000mg/kg
Inhalation:	No data available

Aspiration Hazard
No data available

Respiratory Irritation
No data available

Skin Corrosion / Irritation
No data available

Serious Eye Damage / Irritation
No data available

Respiratory or Skin Sensitisation
No data available

Germ Cell Mutagenicity
No data available

Carcinogenicity
No significant ingredient is classified as carcinogenic (SWA,NTP,IARC)

Reproductive Toxicity
No data available

Specific Organ Toxicity (Single exposure)
No data available

Specific Organ Toxicity (Repeated exposure)
No data available

12. Ecological Information

12.1 *No ecological test data is available for this product: Refer to component data below*

12.2 Components influencing ecological information

12.2.1 2-hydroxy-1,2,3 propane tricarboxylic acid

Toxicity

Toxicity to fish	LC50 – Leuciscus idus (Golden orfe) – 440 – 760mg/ℓ - 96h
Toxicity to daphnia and other aquatic invertebrates	EC50 – Daphnia magna (Water flea) – ca. 120mg/ℓ - 72h
Toxicity to algae	IC5 – Scenedesmus quadricauda (Green algae) – 640mg/ℓ - 7d
Toxicity to bacteria	EC5 – Pseudomonas putida - > 10,000mg/ℓ - 16h

Persistence and degradability:

Biodegradability	aerobic – Exposure time 25d Result: 97% - Readily biodegradable.
Biochemical Oxygen Demand (BOD)	526mg/g
Chemical Oxygen Demand (COD)	728mg/g

Bioacummulative Potential:
No data available.

Mobility in Soil:
No data available

Results of PBT and vPvB assessment:
PBT/vPvB assessment not available as chemical safety assessment not required / not conducted.

12.2.2 Alcohols: C12-C14-secondary, ethoxylated
This product is toxic to aquatic organisms. This product is biodegradable. It will not accumulate in the soil or water or cause long term problems.

Toxicity

Acute toxicity – Fish:	LC Oryzias lapites: 5.1mg/ℓ
Acute toxicity – Daphnia:	No data available
Acute toxicity – Algae:	No data available

Persistence and degradability:
No data available

Bioacummulative Potential:
No data available

Mobility in Soil:
No data available

Results of PBT and vPvB assessment:
No data available

13. Disposal Consideration

13.1 Material
Wash out containers with water and dispose of washings to an industrial sewer. Dispose of clean container to Recycling.

14. Transport Information

14.1 Land Transport:
Not regulated under NZS 5433 for land transport.

14.2 Sea Transport: Not regulated (not dangerous for transport)

14.3 Air Transport: Not regulated (not dangerous for transport)

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15. Regulatory Information

15.1 HSNO Approval:

Approved Code:	HSR002530
HSNO 2020 Group Standard:	Cleaning Products (Subsidiary Hazard)

15.2 HSNO Controls:

Approved Handler	Not required

16. Other Information

16.1 Relevant Hazard Phrases:

H302	Harmful if swallowed
H316	Causes mild skin irritation
H318	Causes serious eye damage
H401	Toxic to aquatic life

16.2 Abbreviations/Terminology:

HSNO	Hazardous substances and New Organisms Act
CAS	Chemical Abstract Service
WES	Workplace Exposure Standard (Worksafe NZ)
TWA	Time weighted average exposure level designed to protect from the effects of long-term exposure.
STEL	Short-term Exposure Level (15 minutes)
VOC	Volatile Organic Compound
NTP	National Toxicology Program (USA)
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration 50%
LD50	Lethal Dose 50%
NOAEL	No Observed Advice Effect Level
PBT	Persistent Bio accumulative Toxic Chemical
vPvB	Very Persistent and Bio accumulative

16.3 Issue Information:

Date of Preparation:	13 September 2022
Reasons:	Update and format change (GHS)
Replaces:	1 July 2007

16.4 The information contained in this Data Sheet relates only to the specific material identified. Equus Industries Ltd believes the information to be accurate and reliable as at the date of this Data Sheet. No Warranty, Guarantee or representation is expressed or implied by the Company as to the absolute correctness or completeness of any representation contained in this Data and assumes no legal responsibility in connection therewith. It cannot be assumed that all acceptable safety measures are contained in this Data Sheet, or that additional measures may not be required under particular or exceptional circumstances or conditions.