1. Product and Company Identification

1.1 PRODUCT NAME: EQUUS MOSSKILL

1.2 USE OF PRODUCT Killing/neutralisation of most mosses, moulds and algae growth of common building surfaces.

1.3 SUPPLIER:

Equus Industries Ltd
Sheffield Street
Riverlands Industrial Estate
Blenheim, Marlborough, New Zealand
Telephone: +64 3 578 0214
Fax: +64 3 578 0919

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

2. Hazards Identification

2.1 Classification:
Dangerous Goods – classification according to New Zealand Dangerous Goods Code.

2.2 Risk & Safety Phrases:
R20,21,22,36,37,38,43,50,53
S2,28,36,37,38,39,45,46,60

The full text of each R & S phrases are listed in Section 16.

3. Composition/Information on Ingredients

3.1 Chemical Characterization (Preparation):
This product is a preparation.

3.2 Hazardous Ingredients:

CAS NO.	COMPONENT	CONCENTRATION %	CLASSIFICATION
111-76-2	Butyl cellosolve	30-50%	R20/21/22/36/38
21564-17-0	2-(triocyanomethylthio) benzothiazole	10-30%	R22/26/36/37/38/43/50/53

3.3 Only ingredients, additives and impurities which are classified and contribute to the classification of the product are included in this section.

4. First Aid Measures

4.1 After Inhalation:
Remove person to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention immediately, if patient experiences nausea, headache or dizziness.

4.2 After Skin Contact:
Wash area with plenty of soap and water. Repeat washing. Remove contaminated clothing and wash thoroughly before reuse. If irritation persists, seek medical attention.

4.3 After Eye Contact:
Flush immediately with copious amount of water for at least 15 minutes, while holding eyelids open. Remove contact lenses and seek medical attention.

4.4 After Ingestion:
Do not induce vomiting. Rinse mouth out with copious amount of water or milk, first.
Slowly drink two glasses of milk or water. If individual is semi-conscious, unconscious or convulsing do not give fluids by mouth. Seek medical attention immediately.

4.5 Advice to Doctor:
Treat symptomatically.

5. Fire Fighting Measures

5.1 Suitable Extinguishing Media:
Use water fog, carbon dioxide, foam, dry chemical.

5.2 Protective Equipment:
Use accepted fire fighting techniques. Wear full fire fighting protective clothing, including self contained breathing apparatus (SCBA).

5.3 Specific Hazards:
Container may rupture from vapour generation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

5.4 Combustion Products:
Carbon monoxide, carbon dioxide, fumes and smoke. Traces of hydrogen cyanide, oxides of sulphur and nitrogen may also be produced.

6. Accidental Release Measures

6.1 Preliminary Action and Precautions:

6.1.1 Eliminate every possible source of ignition.

6.1.2 Evacuate all personnel immediately and ventilate area.

6.1.3 Avoid breathing vapour and contact with skin, eyes and clothing.

6.1.4 Wear recommended personal protective equipment.

6.1.5 Shut off leaks if possible without risk.

6.1.6 Dike in the spilled product as much as possible with inert material.

6.1.7 Prevent entry of product into sewers, storm water drains and open bodies of water.

6.1.8 Collect the spillage in suitable, closable containers for re-use or disposal.

6.1.9 Clean up all spills as soon as possible, using an inert absorbent material (i.e. sand, earth) and dispose of as hazardous waste.

7. Handling and Storage

7.1 Handling:

7.1.1 Avoid contact with eyes, skin and clothing.

7.1.2 Keep containers tightly closed when not in use.

7.1.3 Do not breathe vapours, mist or gas.

7.1.4 Wash hands thoroughly after handling.

7.1.5 Launder contaminated clothing before reuse.

7.2 Storage:

7.2.1 Store in a cool, dry, well ventilated space, away from direct sunlight.

7.2.2 Keep containers tightly closed at all times.

7.2.3 Keep away from open flames and high temperatures.

7.2.4 Store away from strong acids, strong bases and strong oxidizing agents.

8. Exposure Controls and Personal Protection Equipment

8.1 Exposure Limits:

Butyl cellosolve	Cas – 111-76-2	TLV/TWA (ACGIH):	25ppm	(121mg/m^3)
		STEL (ACGIH):	50ppm	(246mg/m^3)

8.2 Exposure Controls:

8.2.1 Exposure Controls in the Work Place:

Use only in well ventilated areas. Provide maximum ventilation in enclosed areas. Use local exhaust when the general ventilation is inadequate.

8.2.2 Personal Protection Equipment

Respiratory Protection – Wear appropriate, properly fitted NIOSH/MSHA, approved organic vapour or supplied air respirator when airborne contaminant level(s) are expected to exceed exposure limits indicated on the MSDS.

Hand Protection – Use suitable impervious nitrile or neoprene gloves and protective apparel to reduce exposure.

Eye Protection – Wear appropriate eye protection. Wear chemical safety goggles and/or face shield to prevent eye contact. Do not wear contact lenses. Do not touch eyes with contaminated body parts or materials. Have eye washing facilities readily available.

Skin/Body Protection - Prevent contact with shoes and clothing. Prevent skin contact.

Protective Measures - Do not consume food in the work area. Wash hands before smoking, eating or using the toilet.

8.2.3 Additional Remarks:

The exposure limits also refer to the potential for dermal absorption of the material including mucous membranes and the eyes, whether by contact with vapours or by direct skin contact. It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposures must be considered.

9. Physical and Chemical Properties

9.1 General Information:

Physical State/Form	Liquid
Colour	Opaque tan
Odour	Organic
Water Solubility/Miscibility	Miscible
Specific Gravity	1.0
VOC	334 g/l

10. Stability and Reaction

10.1 General Information:

This material is stable when properly handled and stored. No hazardous reactions are known.

10.2 Conditions to Avoid:

Avoid sources of ignition.

10.3 Material to Avoid:
Strong oxidizing agents, strong acids and strong bases.

10.4 Hazardous Decomposition Products:
Cyanide salts are formed when product contacts strong alkali. Thermal decomposition generates traces of hydrogen cyanide and sulphur dioxide. Exposure to fire or flame may generate oxides of sulphur, nitrogen, carbon monoxide, carbon dioxide fumes and smoke. Decomposition can include and are not limited to aldehydes, ketones and organic acids.

11. Toxicological Information

11.1 Acute toxicity:
Butyl cellosolve:

Oral LD 50:	(Rat)	470 – 3,000 mg/kg
Dermal LD50:	(Rat)	2,270 mg/kg
Inhalation LC50: (Rat)		700ppm (vapour, 7h)

11.2 Skin Contact:
Harmful in contact with skin. Dermal absorption. May cause moderate irritation.

11.3 Eye Contact:
May cause severe eye irritation. May cause moderate corneal injury. Effects may include discomfort or pain and redness. Effects may be slow to heal. Vapour may cause eye irritation experienced as mild discomfort and redness.

11.4 Ingestion:
Harmful if swallowed. May produce metabolic acidosis and subsequent secondary effects such as hemolysis, central nervous system and kidney effects. Ingestion may cause gastrointestinal discomfort with any or all of the following symptoms: Nausea, vomiting, lethargy or diarrhea.

11.5 Inhalation:
Harmful by inhalation. Over exposure may cause irritation to the upper respiratory tract. Symptoms may include headaches, nausea.

11.6 Chronic effects:
In long term animal studies with butyl cellosolve, small but statistically significant increased in tumors were observed in mice but not rats. The effects are not believed to be relevant to humans. If The material is handled in accordance with proper industrial handling procedures, exposures should not pose a carcinogenic risk to man. The effects from chronic exposure to this product have not been fully evaluated. However, this product may cause sensitization by skin contact. As with any chemical, ingestion, inhalation and prolonged and repeated skin contact should be avoided by good occupational work practice.

12. Ecological Information

12.1 Environment Protection:
Prevent product from entering drains, sewers and waterways.

12.2 Ecotoxicity:
Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

12.3 Persistence and degradability:
Data not available.

12.4 Bioaccumulative Potential:
Data not available.

13. Disposal Consideration

13.1 Material
Dispose of according to regulations by incineration in a special waste incinerator or landfill at a permitted facility in accordance with local/national regulations.

14. Transport Information

14.1 Land Transport:

Road: Corrosive liquid, N.O.S(Class: 8, GP III, HAZ CHEM 2R)

Rail: Corrosive liquid, N.O.S(Class: 8, GP III, HAZ CHEM 2R)

14.2 Sea Transport: Corrosive liquid, N.O.S(Class: 8, GP III, HAZ CHEM 2R)

14.3 Air Transport: Corrosive liquid, N.O.S(Class: 8, GP III, HAZ CHEM 2R)

14.4 Postal and Courier Service: Can not be transported by courier/postal.

15. Regulatory Information

This product is hazardous.

16. Other Information

16.1 Full Text of R-Phrases Contained in Section 2:

R20/21/22	Harmful by inhalation, in contact with skin and if swallowed
R36/37/38	Irritating to the eyes, respiratory system and skin
R43	May cause sensitization by skin contact
R50/53	Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment

16.2 Full Text of S-Phrases Contained in Section 2:

S2	Keep out of the reach of children
S28	After contact with skin, wash immediately with plenty of soap and water.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection
S38	In case of insufficient ventilation, wear suitable respiratory equipment
S45	In case of accident or if you feel unwell, seek medical advice immediately (show label where possible)
S46	If swallowed, seek medical advice immediately and show this container or label
S60	This material and its container must be disposed of as hazardous waste

16.3 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 can not 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.