



MATERIAL SAFETY DATA SHEET

Conforms to 1907/2006/EC Issued: 12/05/2008

PRODUCT NAME: FORMULA X U.H.P. STRIPPER

I. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME	: Formula X U.H.P. Stripper	Product Number: 503
PRODUCT USE	: Floor polish remover concentrate	

MANUFACTURER	: Amano Pioneer Eclipse Corp.	
P.O.BOX	: 909	
ADDRESS	: 1 Eclipse Road, Sparta, North Carolina, 28675, USA	
PHONE	: +1 336 372 8080	

2. HAZARDS IDENTIFICATION

Physical/chemical hazards: Corrosive
Human health hazards: Corrosive
Environmental hazards: On the basis of available information, this material/preparation is not expected to produce any significant adverse environmental effects when used as directed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation: Preparation

INFORMATION ON HAZARDOUS INGREDIENTS

Chemical Name	Einecs No.	Weight %	CAS No.	Symbol	R-phrases *
2-butoxy-ethanol	203-905-0	20-25	111-76-2	X _n (Harmful) X _i (irritant)	R20/21/22, R36/38
2-Amino-ethanol	205-483-3	5-10	141-43-5	C (Corrosive) X _n (Harmful)	R20/21/22, R34
Propylene glycol n-butyl ether	225-878-4	5-10	5131-66-8	Xi (irritant)	R36/38

* see section 16 for the full text of relevant R-phrases

4. FIRST AID MEASURES

EFFECTS AND SYMPTOMS

Inhalation: May be harmful if inhaled. May cause irritation and corrosive effects to nose, throat and respiratory tract.
Ingestion: May cause burns to mouth, throat and stomach. May be harmful if swallowed.
Skin contact: May cause permanent damage. Harmful in contact with skin.
Eye contact: May cause permanent damage.

FIRST AID MEASURES

Inhalation: If breathing is difficult: Remove to fresh air. Get medical attention immediately.
Ingestion: Do not induce vomiting! Immediately drink plenty of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Skin contact: Immediately wash off with plenty of water for at least 15 minutes. Get medical attention immediately.
Eye contact: Immediately wash out with water for at least 15 minutes. Get medical attention immediately.



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5. FIRE FIGHTING MEASURES

Extinguishing media: Dry chemical, water spray, foam, carbon dioxide
Hazardous combustion products: None
Unusual fire and explosion hazards: Materials can splatter above 100°C/212°F.
Special fire fighting procedures: Corrosive material (See Sections 8 and 10).

6. ACCIDENTAL RELEASE MEASURES

Put on appropriate personal protective equipment (see Section 8).

Small spills: Absorb spill on inert material (e.g. sand, earth) and dispose of as waste material in accordance with national and regional provisions.
Large spills: Keep spectators away. Floors may be slippery; use care to avoid falling. Dike and contain spill with inert material (e.g. sand, earth). Transfer liquid to containers for recovery or disposal and solid diking material to separate containers for disposal. Keep spills and cleaning runoff out of sewers and open bodies of water.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Use only in well-ventilated areas. Avoid breathing vapours or spray mists. Remove and wash contaminated clothing and footwear before re-use.

Storage: Storage temperature (Max. 60°C/140°F) (Min. 1°C/34°F). Keep from freezing, product may coagulate. Keep container sealed when not in use. Keep out of reach of children.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure limit values :

Component Name:	Source / Date	Value / Units	Type	Carcinogenic Listing*
2-butoxyethanol	US (ACGIH) / 2005	20 ppm	8 HRS / TWA	N/L
2-butoxyethanol	US (OSHA) / 2005	50 ppm SKIN	8 HRS / PEL TWA	
2-aminoethanol	US (ACGIH) / 2005	3 ppm 7.5 mg/m ³	8 HRS / TWA	N/L
2-aminoethanol	US (ACGIH) / 2005	6 ppm 15 mg/m ³	15 min / STEL	
Propylene glycol n-butyl ether	HSE (UK) / 2000	150 ppm 474 mg/m ³	8 HRS / TWA	N/L
Propylene glycol n-butyl ether	ELV (IE) / 1999	150 ppm 474 mg/m ³	8 HRS / TWA	N/L

*1 = OSHA 2 = IARC 3 = NTP 4 = Others N/L = Not Listed

Exposure controls: No special ventilation requirements. Ensure adequate general ventilation.



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OCCUPATIONAL EXPOSURE CONTROLS

Respiratory protection: No specific personal protection is required.
Hand protection: Rubber gloves recommended
Eye protection: Safety glasses recommended
Skin protection: If major exposure is possible, wear suitable protective clothing such as rubber boots, apron, etc.
Environmental exposure controls: No specific environmental exposure controls required.

9. PHYSICAL AND CHEMICAL PROPERTIES

GENERAL INFORMATION

Appearance: Thin clear liquid

Odor: Slight ammonia/glycol ether

IMPORTANT HEALTH, SAFETY AND ENVIRONMENTAL INFORMATION

pH: 11.95 to 12.45

Flash point: 66°C

Oxidizing properties: Not an oxidizer

Relative density: 0.996 kg/l @ 20°C

Partition coefficient (n-octanol/water): Not determined

Vapor density: Greater than air

Other information: N/A

Boiling point/boiling range: 100°C

Explosive properties: None

Vapor pressure: Greater than water

Solubility: 100% soluble (dispersible) in water

Viscosity: Less than 10 centipoise @ 20°C

Evaporation rate: Less than water

10. STABILITY AND REACTIVITY

Conditions to avoid:

None known

Materials to avoid:

May react or be incompatible with acids and chlorine bleach.

Hazardous decomposition products: None known

11. TOXICOLOGICAL INFORMATION

COMPONENT SUMMARY

Propylene glycol n-butyl ether

LD₅₀: (Oral) rat 5660 mg/kg

LD₅₀: (Skin) rabbit 3100 mg/kg

Potential Health Effects

Eye: May cause moderate eye irritation.

Skin: May cause skin irritation.

Ingestion: Low toxicity if swallowed.

Inhalation: Brief exposure is not likely to cause adverse effects.

Chronic: Not available.

CARCINOGENICITY: Not expected to occur.

2-butoxyethanol

LD₅₀: (Oral) rat 470 mg/kg

ACUTE INHALATION EFFECTS:

Short term exposure to high concentrations of vapors (300 - 600 PPM) can cause respiratory and eye irritation, CNS depression, and possible damage to kidney and liver.



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ACUTE ORAL EFFECTS:

The major toxic effect in acute and sub-chronic animal studies was intra-vascular red cell hemolysis (destruction). This was often associated with secondary effects such as spleen and liver enlargement and nephropathy. Studies show that hemolysis and secondary effects are not relevant to humans.

SKIN EFFECTS: This substance is a mild skin irritant.

EYE EFFECTS: This product is expected to be an eye irritant.

REPEATED DOSE TOXICITY:

Administration of ethylene glycol monobutyl ether (EGBE) to rats (855 mg/kg/day) and mice (1000 mg/kg/day) for periods of 5-6 weeks showed no effects on the tests. NTP reported testicular weight changes in rats and mice ingesting up to 6000 PPM (443 and 694 mg/kg/day in rats and mice) of EGBE in a 13 week drinking water study. No chemically related microscopic lesions were seen.

CARCINOGENICITY: Not expected to occur.

2-aminoethanol

2-aminoethanol is a severe eye irritant and a skin irritant. Chronic exposure can cause irritant or allergic contact dermatitis, occupational asthma and possibly liver damage. 2-aminoethanol was teratogenic in rats exposed by the oral route at high doses.

LD₅₀: (Oral) rat 1200 mg/kg

ACUTE INHALATION EFFECTS:

Prolonged and repeated exposure to vapors may cause damage to the CNS, lungs and kidneys.

ACUTE ORAL EFFECTS:

May cause CNS depression, gastrointestinal tract, liver and kidney damage.

REPEATED DOSE TOXICITY:

Chronic occupational exposure reportedly was associated with chronic bronchitis, liver damage, weakness and fatigue. Occupational asthma has also been reported with chronic exposure. Rats chronically exposed had degenerative changes in the liver, heart and lungs.

CARCINOGENICITY:

At the time of this review, no studies were found on the possible carcinogenic activity of this material in humans or experimental animals.

PREPARATION SUMMARY

LOCAL EFFECTS

Skin contact: See section 4

Eye Contact: See section 4

Sensitization: None known

Chronic effects: None known

SPECIFIC EFFECTS

Carcinogenicity: None known

Reproductive effects: None known

Teratogenicity: None known

Mutagenicity: None known

12. ECOLOGICAL INFORMATION

COMPONENT SUMMARY

2-Aminoethanol

Fathead minnow; 96hr; LC50 = 206 mg/l

2-butoxyethanol

Fathead minnow LC50 = 1900 mg/l



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Preparation Summary

- Ecotoxicity:** These materials are highly soluble in water. Limited toxicity tests and models indicate these materials should exhibit low toxicity to aquatic organisms. These materials have exhibited low toxicity in laboratory testing with rats.
- Environmental fate:** These materials will biodegrade relatively rapidly in both soil and water, and will not persist in the environment. Due care should be taken to avoid accidental releases to aquatic or terrestrial systems.
- Bioaccumulation:** Because of these materials' high solubility and rapid biodegradability, it is unlikely that bioaccumulation will occur in aquatic or terrestrial systems. Models estimate that these materials will preferentially partition to water versus air or soil. On the basis of available information this material is not expected to produce any significant adverse environmental effects when used as directed.

COMPONENT SUMMARY

Propylene glycol n-butyl ether

Ecotoxicity: This material is expected to be non-hazardous to aquatic species.

<u>Test type</u>	<u>Species</u>	<u>Value / Units</u>
LC50 / 96 HOURS	fathead minnow	1060 mg/l

Environmental Fate: It is soluble in water. It may enter soil and may contaminate water. It is not expected to adsorb onto soils or sediments. BOD (Modified MITI Test)= 82 to 95% ThOD (28 day) BOD (Closed Bottle Test)= 92% ThOD (28 day)

Bioaccumulation: No relevant studies identified.

Biodegradation: This material is expected to be readily biodegradable.

13. DISPOSAL

Disposal of this material should be in accordance with local, regional and national regulations.

14. TRANSPORT INFORMATION

INTERNATIONAL TRANSPORTATION REGULATIONS:

UN number: UN1760

Packing group: III

LAND-ROAD/RAILWAY

Proper shipping name: Corrosive liquid, n.o.s. mixture contains ethanolamine
ADR/RID class: 8
ADR/RID item number: 80°c

SEA

Proper shipping name: Corrosive liquid, n.o.s. mixture contains ethanolamine
IMDG class: 8

Medical First Aid Guide (MFAG): 730
Emergency Schedules (EmS): Fire F-A, Spillage S-B
Marine Pollutant: none

15. REGULATORY INFORMATION

NATIONAL REGULATIONS: No additional national regulations are known to the supplier.

EU REGULATIONS

Hazard symbol:



EU Classification: Classified as Corrosive according to current legislation (67/548/EEC, 1999/45/EC).

Risk phrases: See Section 16.

Safety phrases: S1/2- Keep locked up and out of the reach of children.
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
S45- In case of accident or if you feel unwell, seek medical advice immediately.
S46- If swallowed, seek medical advice immediately and show this container or label.

EINECS Status: All ingredients are included in the EINECS inventories.

CANADA CPR Status: This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the MSDS contains all the information required by the *Controlled Products Regulations*.

16. OTHER INFORMATION

Relevant R phrases:

R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.
R34- Causes Burns.
R36/38- Irritating to eyes and skin

Issued by:

Jamie Moxley, Laboratory Technician

Revision Information:

12/05/08, revisions conforming to 1907/2006/EC