



SAFETY DATA SHEET

Conforms to 1907/2006/EC - (EU) 2015/830

Issued: Sept. 22, 2016

Supersedes: May 17, 2016

FORMULA X™ UHP

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFIER

Product Name: Formula X UHP - Ultra High Performance Stripper Product Number: 503

1.2 RELEVANT IDENTIFIED USES OF THE MIXTURE AND USES ADVISED AGAINST

Product intended for commercial and industrial use only.
Intended Use: Floor Finish remover concentrate
Uses Advised Against: Other than per labelled instructions.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Manufacturer:

Amano Pioneer Eclipse Corporation
P.O. Box 909
1 Eclipse Road
Sparta, NC 28675
Telephone: 1-336-372-8080
Email: sds@pioneereclipse.com
Internet: www.pioneereclipse.com

1.4 EMERGENCY TELEPHONE NUMBER

For Chemical Emergency: Spill, Leak, Fire, Exposure or Accident. Call CHEMTREC Day or Night.
Within USA and Canada 1-800-424-9300. Outside USA and Canada 1-703-527-3887 (collect calls accepted)

SECTION 2: HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE MIXTURE

This mixture has been classified according to EC 1272/2008.
Skin Corrosion - Category 1B
Eye Damage - Category 1
Specific Target Organ Toxicity (Single Exposure) - Category 3

2.2 LABEL ELEMENTS

Signal Word: Danger

Hazard pictogram(s):



Hazard Statement(s):

H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

Precautionary Statement(s):

P260 Do not breathe mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection.
P310 Immediately call a POISON CENTER/doctor if you feel unwell.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 OTHER HAZARDS No other hazards are known to the supplier

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FORMULA X™ UHP**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1/3.2 SUBSTANCES/MIXTURES**

| Ingredient | EC No. | Weight % | CAS No. | Classification | |
|----------------------------------|-----------|----------|-----------|--|--------------------------------|
| | | | | Hazard Class | Hazard Statement(s)* |
| ethylene glycol monobutyl ether | 203-905-0 | 10 - 30 | 111-76-2 | Acute Tox 4 Eye Irrit 2 Skin Irrit 2 | H302,H312,H332 H319 H315 |
| ethanolamine | 205-483-3 | 5 - 10 | 141-43-5 | Acute Tox 4 Skin Corr 1B STOT SE 3 | H302,H312,H332 H314 H335 |
| propylene glycol monobutyl ether | 225-878-4 | 5- 10 | 5131-66-8 | Eye Irrit 2 Skin Irrit 2 | H319 H315 |

*See section 16 for the full text of Hazard Statements

SECTION 4: FIRST AID MEASURES**4.1 DESCRIPTION OF FIRST AID MEASURES**

- Eye Contact:** Immediately wash out with water for at least 15 minutes. (If easy to do, remove contact lenses, if worn.) Seek medical attention immediately.
- Skin Contact:** Immediately wash with plenty of water for at least 15 minutes. (Remove any contaminated clothing and shoes.) Seek medical attention immediately.
- Inhalation:** If breathing is difficult: Remove to fresh air. Seek medical attention immediately.
- Ingestion:** Call a physician or poison control center immediately. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- Eye Contact:** Can cause serious eye damage. May cause permanent damage.
- Skin Contact:** Can cause severe skin burns. May cause permanent damage.
- Inhalation:** May cause irritation and corrosive effects to nose, throat and respiratory tract.
- Ingestion:** May cause burns to mouth, throat and stomach.

4.3 INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No information available.

SECTION 5: FIRE FIGHTING MEASURES**5.1 EXTINGUISHING MEDIA**

In case of fire: use dry chemical, water spray, foam, carbon dioxide

5.2 SPECIAL HAZARDS ARISING FROM THE MIXTURE

Hazardous combustion products: CO, CO₂, Nitrogen oxides

During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include but not limited to the above mentioned substances.

5.3 ADVICE FOR FIRE FIGHTERS

As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection. Fire-fighters should wear clothing conforming to EN469 for chemical incidents. Materials can splatter above 100°C/212°F. Corrosive material.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

Refer to Section 8 for appropriate personal protective equipment.

6.2 ENVIRONMENTAL PRECAUTIONS

Keep spills and cleaning runoff out of sewers and open bodies of water.



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FORMULA X™ UHP

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

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. Neutralize spill area. 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.

6.4 REFERENCE TO OTHER SECTIONS: Refer to Section 8 of the SDS.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE 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 reuse.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

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

7.3 SPECIFIC END USE(S): No information available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Workplace Exposure Limits:

| Ingredient | Source | TWA (8hours) | | STEL (Short term) | | Note(s) |
|---------------------------------|--|--------------|-------------------|-------------------|-------------------|----------|
| | | ppm | mg/m ³ | ppm | mg/m ³ | |
| ethylene glycol monobutyl ether | ACGIH TLV | 20 | 97 | - | - | BEI |
| | DE (TRGS 900) | - | - | 10 | 49 | H,Y, AGS |
| | DK - At-Vejledning Stoffer og materialier- C.0.1 | 20 | 98 | - | - | EH |
| | EU (2000/39/EC) | 20 | 98 | 50 | 246 | Skin |
| | NO – Forskrift, best.nr. 704 | - | - | 10 | 50 | H |
| | EH40 | 25 | 123 | 50 | 246 | Sk, BMGV |

| Ingredient | Source | TWA (8hours) | | STEL (Short term) | | Note(s) |
|--------------|--|--------------|-------------------|-------------------|-------------------|---------|
| | | ppm | mg/m ³ | ppm | mg/m ³ | |
| ethanolamine | ACGIH TLV | 3 | 7.5 | 6 | 15 | - |
| | DE (TRGS 900) | - | - | 2 | 5.1 | H,Y,Sh |
| | DK - At-Vejledning Stoffer og materialier- C.0.1 | 1 | 2.5 | - | - | H |
| | EU (2006/15/EC) | 1 | 2.5 | 3 | 7.6 | Skin |
| | NO Administrative Norm | 1 | 2.5 | - | - | H |
| | EH40 | 1 | 2.5 | 3 | 7.6 | Skin |

8.2 EXPOSURE CONTROLS

Engineering Controls: Use only with adequate ventilation. Use local ventilation and other engineering controls to maintain airborne contaminants below established and recommended exposure limits. If this product contains ingredients with exposure limits, monitoring may be required to determine the effectiveness of ventilation and other control measures.

Environmental exposure controls: No specific environmental exposure controls known.

Personal Protective Equipment (PPE)

Eye/Face Protection: Safety eyewear is recommended to avoid chemical splashes and mists.
Safety glasses or goggles (EN166).



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FORMULA X™ UHP

| | |
|-------------------------|--|
| Hand Protection: | Chemical resistant gloves are recommended. (EN374). Protective index 6, Breakthrough time > 480 mins. (E.g. - nitrile gloves, 0.4 mm thickness) Protective gloves should be selected according to the application and duration of use. Workplace selection should take into consideration handling requirements, physical requirements and exposure to other substances. |
| Skin Protection: | If major exposure is possible, wear suitable protection such as rubber boots, apron, etc. |
| Respiratory Protection: | Respiratory protection should be worn when there is a potential of inadequate ventilation. If exposure limits are exceeded or symptoms are experienced, use an approved respirator with multi-purpose combination filter. (E.g. - EN 14387- ABEK) |

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|--|---------------------------|---|
| Appearance: | clear, colorless, liquid | |
| Odor: | slight citrus | |
| Odor Threshold: | No test data available | |
| pH: | 12.2 | [Method: ASTM E 70] |
| Melting Point/Freezing Point: | No test data available | |
| Initial boiling point/boiling range: | No test data available | |
| Flash Point: | > 93°C | [Method: Closed cup, ASTM D 56] |
| Evaporation Rate: | No test data available | |
| Flammability (solid, gas) | Not applicable to liquids | |
| Upper/lower flammability/explosive limits: | No test data available | |
| Vapor Pressure: | No test data available | |
| Vapor Density: | No test data available | |
| Relative Density: | 1.0 kg/L @ 20°C | [Method: Pycnometer, ASTM D 1475] |
| Solubility: | miscible in water | |
| Partition Coefficient (n-octanol/water): | No test data available | |
| Auto Ignition temperature: | No test data available | |
| Decomposition Temperature: | No test data available | |
| Viscosity: | < 5 centipoise @ 20°C | [Method: Rotational viscometer, Brookfield] |
| Explosive Properties: | none | |
| Oxidizing properties: | none | |

9.2 OTHER INFORMATION

| | |
|------|--|
| VOC: | 42%(as supplied), 8.2%(1:4), 4.6%(1:8), 2.4%(1:16) |
|------|--|

SECTION 10: STABILITY AND REACTIVITY

| | |
|--|--|
| 10.1 REACTIVITY: | None known |
| 10.2 CHEMICAL STABILITY: | Stable under normal conditions. |
| 10.3 POSSIBILITY OF HAZARDOUS REACTIONS: | Product may react strongly with water. Care should be used if diluting; product should be slowly added to water. |
| 10.4 CONDITIONS TO AVOID: | None known |
| 10.5 INCOMPATIBLE MATERIALS: | Strong acids, bases and oxidizing agents. Do not mix with other chemicals unless stated on the product label. |
| 10.6 HAZARDOUS DECOMPOSITION PRODUCTS: | None known |

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

| | | |
|-----------------------------------|---|---|
| ACUTE TOXICITY: | Toxicity testing has not been completed on the mixture. | |
| ATE _{mix} (oral) - | > 2000 mg/kg | Based on available data, the classification criteria are not met. |
| ATE _{mix} (dermal) - | > 2000 mg/kg | |
| ATE _{mix} (inhalation) - | > 20 mg/l (vapour) | |



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Conforms to 1907/2006/EC - (EU) 2015/830

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Supersedes: May 17, 2016

FORMULA X™ UHP

| Component | CAS # | LD50 Oral-Rat (mg/kg) | LD50 Dermal - Rabbit (mg/kg) | LC50 Inhalation- (mg/l) |
|----------------------------------|-----------|-----------------------|------------------------------|-------------------------|
| ethylene glycol monobutyl ether | 111-76-2 | 1300 | >2000 | guinea pig (1hr), >3.1 |
| ethanolamine | 141-43-5 | 1515 | 2504 | rat (4hr), >1.3 |
| propylene glycol monobutyl ether | 5131-66-8 | 5660 | > 2000 | rat (4hr), >3.5 |

- SKIN CORROSION/IRRITATION:** Classified as Skin Corrosive - Category 1B
Causes severe skin burns.
- SERIOUS EYE DAMAGE/IRRITATION:** Classified as Eye Damage - Category 1
Causes serious 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.
- STOT-SINGLE EXPOSURE:** Classified as STOT-SE - Category 3
May cause respiratory irritation.
- STOT-REPEATED EXPSURE:** Based on available data, the classification criteria are not met.
- ASPIRATION HAZARD:** Based on available data, the classification criteria are not met.

11.2 POTENTIAL ADVERSE HEALTH EFFECTS

Effects and symptoms related to this mixture, if any, are listed in Section 4.2.

SECTION 12: ECOLOGICAL INFORMATION

12.1 TOXICITY: Ecological testing has not been completed on the mixture.

| Component | CAS # | LC50 - 96 hr | LC50 - 48 hr | EC50 - 72 hr |
|----------------------------------|-----------|----------------------------|---------------------------|-----------------|
| ethylene glycol monobutyl ether | 111-76-2 | vertebrate, 820-1490 mg/ml | Daphnia magna, 835 mg/l | algae, 911 mg/l |
| ethanolamine | 141-43-5 | vertebrate, 125-2010 mg/ml | Daphnia magna, 33-93 mg/l | algae, 2.5 mg/l |
| propylene glycol monobutyl ether | 5131-66-8 | vertebrate, 560-1000 mg/ml | Daphnia magna, >1000 mg/l | algae, 560 mg/l |

12.2 PERSISTANCE AND DEGRADABILITY: Testing has not been completed on the mixture.

| Component | CAS # | Biodegradation |
|----------------------------------|-----------|-----------------------|
| ethylene glycol monobutyl ether | 111-76-2 | readily biodegradable |
| ethanolamine | 141-43-5 | readily biodegradable |
| propylene glycol monobutyl ether | 5131-66-8 | readily biodegradable |

12.3 BIOACCUMULATIVE POTENTIAL: Testing has not been completed on the mixture.

| Component | CAS # | Partition coefficient n-octanol/water (Kow) (Log) | Bioconcentration factor (BCF) |
|----------------------------------|-----------|---|-------------------------------|
| ethylene glycol monobutyl ether | 111-76-2 | 0.81 | < 100 |
| ethanolamine | 141-43-5 | -1.91 | < 100 |
| propylene glycol monobutyl ether | 5131-66-8 | 1.2 | < 100 |

12.4 MOBILITY IN SOIL: Testing has not been completed on the mixture.

| Component | CAS # | Soil Organic Carbon-Water Partitioning Coefficient (Koc) |
|----------------------------------|-----------|--|
| ethylene glycol monobutyl ether | 111-76-2 | 67 |
| ethanolamine | 141-43-5 | 1.17 |
| propylene glycol monobutyl ether | 5131-66-8 | 1.3 - 6 |



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FORMULA X™ UHP

- 12.5 RESULTS OF PBT AND vPvB ASSESSMENT:** Not applicable
- 12.6 OTHER ADVERSE EFFECTS:** None known
- 12.7 ADDITIONAL INFORMATION:** Based on available data, the classification criteria are not met.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Disposal of this material should be in accordance with local, regional and national regulations.
EU Waste Catalogue: 20 01 15*

SECTION 14: TRANSPORT INFORMATION

- 14.1 UN NUMBER:** UN1760
- 14.2 UN PROPER SHIPPING NAME:** Corrosive liquid, n.o.s. (ethanolamine)
- 14.3 TRANSPORT HAZARD CLASSES:** 8
- 14.4 PACKING GROUP:** III
- 14.5 ENVIRONMENTAL HAZARDS:** N/A
- 14.6 SPECIAL PRECAUTIONS FOR USER:**
Package volumes < 5 L are shipped as Limited Quantity; as permitted by hazard class and quantity limits.

IMDG

Emergency Schedules (EmS): Fire F-A, Spillage S-B
Stowage and Segregation: Category B. Clear of living quarters.
Marine Pollutant: None

ADR/RID

Class: 8
Item Number: 80
Classification Code: C9

- 14.7 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MAPROL73/78 AND THE IBC CODE:** N/A

SECTION 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE MIXTURE

EINECS STATUS: Ingredients are included in the EINECS/ELINCS/NLP inventories.
NATIONAL REGULATIONS: No additional national regulations are known to the supplier.

- 15.2 CHEMICAL SAFETY ASSESSMENT:** No information available.

SECTION 16: OTHER INFORMATION

REVISION INFORMATION:

Sept. 22, 2016 - Revisions Section 2.2, 10.5, 11.1, 16.

ABBREVIATIONS:

N/A - Not applicable
N/E - Not Established
N/L - Not Listed

FULL TEXT OF HAZARD STATEMENTS:

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.



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FORMULA X™ UHP

FULL TEXT OF PRECAUTIONARY STATEMENTS:

- P264 Wash thoroughly after handling.
- P310 Immediately call a POISON CENTER/doctor.
- P321 Specific treatment (see ... on this label).
- P337+313 If eye irritation persists: Get medical advice/attention.
- P363 Wash contaminated clothing before reuse.
- P405 Store locked up.

ISSUED BY:

Chemical/R&D Department
Amano Pioneer Eclipse Corporation