

STARSHINE® GLASS & SURFACE CLEANER

I. IDENTIFICATION OF THE SUBSTANCE/MIXTURE (PREPARATION) AND OF THE COMPANY/UNDERTAKING

Product Name: StarShine® Glass & Surface Cleaner (Ready to Use) **Product Number:** 313RTU
Product Use: Water-based glass & surface cleaner

Manufacturer Address: Amano Pioneer Eclipse Corp.
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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)

2. HAZARDS IDENTIFICATION

This mixture (preparation) has been classified and labeled according to EC 1272/2008 (1999/45/EC).

EU Classification: Not classified as hazardous (dangerous)
Hazard pictogram (symbol): None
Hazard Statements (R- Phrases): None
Precautionary Statements (S- phrases): None

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Hazardous Ingredients (1272/2008) | EC No. | Weight % | CAS No. | Hazard Class | Hazard Statements * |
|-----------------------------------|-----------|----------|----------|--|----------------------|
| 1-methoxy-2-propanol | 203-539-1 | 1 - 5 | 107-98-2 | Flam Liq 3 | H226 |
| Isopropanol | 200-661-7 | .01 –1.0 | 67-63-0 | Flam Liq 2 Eye Irrit 2 STOT SE 3 | H225 H319 H336 |

* See section 16 for the full text of listed Hazard Statements

| Dangerous Ingredients (1999/45/EC) | EC No. | Weight % | CAS No. | Symbol | R-phrases * |
|------------------------------------|-----------|----------|----------|--------------------------------|-----------------|
| 1-methoxy-2-propanol | 203-539-1 | 1 - 5 | 107-98-2 | F (Flammable) | R10 R67 |
| Isopropanol | 200-661-7 | .01 –1.0 | 67-63-0 | F (Flammable) Xi (Irritant) | R11 R36, R67 |

* See section 16 for the full text of listed R-phrases

4. FIRST AID MEASURES

This mixture (preparation) is not expected to produce significant adverse health effects, when recommended use instructions are followed.

EFFECTS AND SYMPTOMS

Inhalation: None expected under normal use.
Ingestion: None expected under normal use.
Skin contact: None expected under normal use.
Eye contact: None expected under normal use.

FIRST AID MEASURES

Inhalation: If breathing is difficult, remove to fresh air. If symptoms persist, seek medical attention
Ingestion: If ingested, do not induce vomiting. Seek medical attention.
Skin contact: Wash off with plenty of water. If irritation develops, seek medical attention.
Eye contact: Rinse with plenty of water. If irritation develops, seek medical attention.

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: No special fire fighting procedures recommended.

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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. Neutralize spill area. Dike and contain spill with inert material (e.g. sand, earth). Transfer liquid to containers for recovery or disposal and 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 |
|---|------------------------|----------------------------------|---------------------|
| 1-methoxy-2-propanol | US (ACGIH) / 2010 | 100 ppm 369 mg/m ³ | TWA |
| 1-methoxy-2-propanol | US (ACGIH) / 2010 | 150 ppm 553 mg/m ³ | STEL |
| 1-methoxy-2-propanol (1-methoxypropanol-2) | EU (2000/39/EC) / 2000 | 100 ppm 375 mg/m ³ | 8 HR TWA Skin |
| 1-methoxy-2-propanol (1-methoxypropanol-2) | EU (2000/39/EC) / 2000 | 150 ppm 568 mg/m ³ | 15 min STEL Skin |
| Isopropanol (2-propanol) | US (ACGIH) / 2010 | 200ppm 492 mg/m ³ | TWA |
| Isopropanol (2-propanol) | US (ACGIH) / 2010 | 400 ppm 983 mg/m ³ | STEL |

Exposure controls: Ensure adequate general ventilation.

Environmental exposure controls: No specific environmental exposure controls required.

PERSONAL PROTECTION

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : clear, blue liquid

Odor threshold: N/E

Melting point/Freezing Point: N/A

Flash point: not combustible

Upper/lower flammability/explosive limits: N/A

Vapor density: greater than air

Solubility: 100% soluble in water

Auto-ignition temperature: N/A

Viscosity: <10 centipoise @ 20°C

Oxidizing properties: Not an oxidizer

Odor: fresh and clean fragrance

pH: 9.0 ± 0.5

Initial boiling point/boiling range: 100°C

Evaporation Rate: less than water

Vapor pressure: less than water

Relative density: 1.00 kg/l @ 20°C

Partition coefficient (n-octanol/water): N/E

Decomposition temperature: N/E

Explosive Properties: N/A

Other information: N/A

10. STABILITY AND REACTIVITY

Chemical stability: Stable under normal conditions

Hazardous Reactions: None known

Conditions to avoid: None known

Incompatible materials: Strong acids and bases

Hazardous decomposition products: None known

11. TOXICOLOGICAL INFORMATION

MIXTURE (PREPARATION) SUMMARY - Toxicity testing has not been completed on the mixture.

LOCAL EFFECTS

Skin contact: None expected
Eye Contact: None expected
Sensitization: None expected
Chronic effects: None expected

SPECIFIC EFFECTS

Carcinogenicity: None known
Reproductive effects: None known
Teratogenicity: None known
Mutagenicity: None known

COMPONENT SUMMARY *

1-methoxy-2-propanol CAS#107-98-2 & 2-methoxypropanol CAS#1589-47-5 (mixture summary)

LD₅₀: (oral, rat) 5660 mg/kg

Potential Health Effects

Eye: May cause irritation, redness and pain.

Skin: May cause irritation with redness and pain.

Ingestion: Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea.

Inhalation: Vapors are irritating to the respiratory tract. Headache, dizziness and drowsiness may occur.

Chronic: Chronic exposure may damage the liver and kidneys.

Carcinogenicity: Not listed as a carcinogen.

Isopropanol CAS#67-63-0

LD₅₀: (oral, rat) 5000 mg/kg

Potential Health Effects

Eye: Causes irritation, characterized by burning, redness, tearing and inflammation.

Skin: May cause irritation with pain and stinging.

Ingestion: Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation: Causes upper respiratory tract irritation. May cause drowsiness and dizziness.

Chronic: Prolonged or repeat contact may cause defatting of the skin and dermatitis.

Carcinogenicity: Not listed as a carcinogen.

*Component data recorded from available sources pertaining to individual component CAS number.

12. ECOLOGICAL INFORMATION

MIXTURE (PREPARATION) SUMMARY - Ecological testing has not been completed on the mixture.

COMPONENT SUMMARY *

1-methoxy-2-propanol CAS#107-98-2

LC50, 96hr rainbow trout 19202 mg/l

EC50, 48 hr Daphnia magna 400 mg/l

Environmental Fate: Limited tests suggest the material should be biodegradable. Not expected to bioconcentrate.

Isopropanol CAS#67-63-0

LC50, 96 hr fathead minnow >1000 ppm

EC50, 96hr Daphnia >1000 ppm

Environmental Fate: This material is expected to moderately biodegrade and not expected to bioaccumulate

*Component data recorded from available sources pertaining to individual component CAS number.

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

Not regulated for transport.

15. REGULATORY INFORMATION

EINECS Status

Ingredients are included in the EINECS/ELINCS/NLP inventories.

NATIONAL REGULATIONS

648/2004

The surfactants contained in this preparation comply with the biodegradability criteria laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of the detergent manufacturer.

No additional national regulations are known to the supplier.

16. OTHER INFORMATION

Detergent/Cleaner Labeling: (648/2004)

<5% - amphoteric surfactant, preservative, perfume

Hazard Statements: (for components listed in Section 3)

H225 – Highly flammable liquid and vapour

H226 – Flammable liquid and vapour

H319 – Causes serious eye damage

H336 – May cause drowsiness or dizziness.

Precautionary Statements: (for components listed in Section 3)

P210 – Keep away from heat/sparks/open flames/hot surfaces – No smoking

P233 – Keep container tightly closed

P240 – Ground/bond container and receiving equipment

P241 – Use explosion proof electrical/ventilating/light/equipment

P242 – Use only non-sparking tools

P243 – Take precautionary measures against static discharge

P261 – Avoid breathing dust/fume/gas/mist/vapours/spray

P264 – Wash thoroughly after handling

P271 – Use only outdoors or in a well-ventilated area

P280 – Wear protective gloves/protective clothing/ eye protection/ face protection.

P312 – Call a POISON CENTER or doctor/physician if you feel unwell

P405 – Store locked up

P501 – Dispose of contents/container in accordance to local/regional/national/international regulations

P303+361+353 – IF ON SKIN, (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P304+340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+351+338 – IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses, if present and easy to do – continue rinsing.

P337+313 – Get medical advice/attention

P403+233 – Store in a well-ventilated place. Keep container tightly closed

P403+235 – Store in a well-ventilated place. Keep cool

R (Risk) phrases: (for components listed in Section 3)

R10- Flammable.

R11- Highly flammable.

R36/37/38- Irritating to eyes, respiratory system and skin.

R41- Risk of serious damage to eyes.

R61- May cause harm to the unborn child.

R67- Vapours may cause drowsiness and dizziness.

S (Safety) phrases: (for components listed in Section 3)

S2- Keep out of the reach of children.

S7- Keep container tightly closed.

S16- Keep away from sources of ignition – No Smoking.

S24/25- Avoid contact with skin and eyes

S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S51- Use only in well-ventilated areas.

S53- Avoid exposure – obtain special instructions before use.

Abbreviations:

N/A = Not Applicable

N/E = Not Established

N/L = Not Listed

Issued by:

Chemical/R&D Department

Amano Pioneer Eclipse Corporation

Revision Information:

04/01/2011 – revisions conforming to 1907/2006/EC amendment 453/2010