



## SAFETY DATA SHEET

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

Issued: June 14, 2016

Supersedes: Feb. 22, 2016

### STARSHINE™ STAINLESS STEEL CLEANER & POLISH

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

##### 1.1 PRODUCT IDENTIFIER

Product Name: StarShine Stainless Steel Cleaner & Polish Product Number: 319

##### 1.2 RELEVANT IDENTIFIED USES OF THE MIXTURE AND USES ADVISED AGAINST

Product intended for commercial and industrial use only.  
Intended Use: Aerosol cleaner and polish. Ready to use.  
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.  
Aspiration Hazard - Category 1  
Skin Irritation - Category 2  
Skin Sensitization - Category 1  
Eye Irritation - Category 2  
Specific Target Organ Toxicity (Single Exposure) - Category 3  
Flammable Aerosols - Category 1  
Aquatic Chronic - Category 2

##### 2.2 LABEL ELEMENTS

Signal Word: Danger

Hazard pictogram(s):



Hazard Statement(s):

H222 Extremely flammable aerosol.  
H229 Pressurized container: May burst if heated.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness  
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statement(s):

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P211 Do not spray on an open flame or other ignition source.  
P251 Pressurized Container: Do not pierce or burn, even after use.  
P261 Avoid breathing mist/spray.

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- P264 Wash hands and face thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release into the environment.  
P280 Wear protective gloves/eye protection.  
P403+405 Store in a well-ventilated place. Store locked up.  
P410+412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

**2.3 OTHER HAZARDS** No other hazards are known to the supplier

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1/3.2 SUBSTANCES/MIXTURES**

Ingredient	EC No.	Weight %	CAS No.	CLP Classification	
				Hazard Class	Hazard Statement(s)*
Distillates (petroleum), hydrotreated heavy naphthenic	265-155-0	40 - 50	64742-52-5	Carc 1B †	H350 †
d-limonene	227-813-5	20 - 30	5989-27-5	Flam Liq 3 Skin Irrit 2 Skin Sens 1 Aqua Acute 1 AquaChronic1	H226 H315 H317 H400 H410
Distillates (petroleum), hydrotreated light	265-149-8	5 - 15	64742-47-8	Asp Tox 1	H304
Butane/Propane (Propellant Blend)	203-448-7/ 200-827-9	6.3/18.5	106-97-8/ 74- 98-6	Flam Gas 1 Pres Gas	H220

† See section 16 for explanatory note

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

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

- Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- Skin Contact:** Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
- Inhalation:** Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
- Ingestion:** Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.

**4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED**

- Eye Contact:** Can be irritating to eyes.
- Skin Contact:** Can be irritating to skin.
- Inhalation:** Vapour can be harmful. Vapours may cause drowsiness and dizziness.
- Ingestion:** Harmful or fatal if swallowed. Aspiration hazard if swallowed.

**4.3 INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED**

Aspiration hazard - this material can enter lungs during swallowing or vomiting and can cause lung inflammation and damage.

Treat symptomatically.

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

In case of fire: water spray, fog or foam

**5.2 SPECIAL HAZARDS ARISING FROM THE MIXTURE**

Flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing a fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Run-off to sewer may create a fire or explosion hazard.



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### 5.3 ADVICE FOR FIRE FIGHTERS

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Fire fighters should wear NIOSH approved breathing apparatus.

## 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.

### 6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Stop all leaks. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Eliminate all ignition sources. Disperse vapors with water spray. Absorb spill with inert material. DO NOT use clay-type absorbent materials. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to 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 in well-ventilated areas. Avoid breathing vapors or mists. Do not puncture or incinerate container. Do not use near ignition sources.

### 7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store in a cool, dry place. Do not store near heat, sparks or open flame. Exposure to temperatures above 120° may cause bursting.

### 7.3 SPECIFIC END USE(S):

Keep out of reach of children. Intentional misuse by deliberately concentrating and inhaling may be harmful or fatal.

## 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 <sup>3</sup>	ppm	mg/m <sup>3</sup>	
d-Limonene	DE (TRGS 900)	-	-	5	28	DFG,H,Sh,Y
	NO – Forskrift, best.nr. 704	-	-	25	140	A

Ingredient	Source	TWA (8hours)		STEL (Short term)		Note(s)
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
Propane	NO – Forskrift, best.nr. 704	-	-	500	900	-
	DE (TRGS 900)	1000	1800	-	-	DFG
	DK - At-Vejledning Stoffer og materialier- C.0.1	1000	1800	-	-	-

Ingredient	Source	TWA (8hours)		STEL (Short term)		Note(s)
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
n-Butane	NO – Forskrift, best.nr. 704	-	-	250	600	-
	EH40	600	1450	750	1810	-
	DE (TRGS 900)	100	2400	-	-	DFG
	DK - At-Vejledning Stoffer og materialier- C.0.1	500	1200	-	-	-



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#### 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.

**Personal Protective Equipment (PPE)**

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

**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 spray/mist	
Odor:	citrus odor	
Odor Threshold:	No test data available	
pH:	9.0 (as supplied)	[Method: ASTM E 70]
Melting Point/Freezing Point:	No test data available	
Initial boiling point/boiling range:	No test data available	
Flash Point:	120 °F / 49 °C (liquid portion)	[Method: Closed cup, ASTM D 56]
Evaporation Rate:	No test data available	
Flammability (solid, gas)	Extremely flammable aerosol	
Upper/lower flammability/explosive limits:	No test data available	
Vapor Pressure:	No test data available	
Vapor Density:	No test data available	
Relative Density:	0.8 kg/l @ 20°C	[Method: Pycnometer, ASTM D 1475]
Solubility:	insoluble	
Partition Coefficient (n-octanol/water):	No test data available	
Auto Ignition temperature:	No test data available	
Decomposition Temperature:	No test data available	
Viscosity:	No test data available	
Explosive Properties:	None	
Oxidizing properties:	None	

##### 9.2 OTHER INFORMATION

VOC: 62.50% (wt. %)

#### SECTION 10: STABILITY AND REACTIVITY

- 10.1 REACTIVITY:** Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.2 CHEMICAL STABILITY:** Stable under normal conditions.
- 10.3 POSSIBILITY OF HAZARDOUS REACTIONS:** Vapors may ignite at temperatures exceeding flash point.
- 10.4 CONDITIONS TO AVOID:** High temperatures, open flames, sparks, welding and other ignition sources.
- 10.5 INCOMPATIBLE MATERIALS:** Acids, strong oxidizers, inorganic clays (clay-type absorbents)
- 10.6 HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon dioxide, Carbon monoxide



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### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

##### ACUTE TOXICITY:

Toxicity testing has not been completed on the mixture.  
Based on available data, the classification criteria are not met.

Component	CAS #	LD50 Oral-Rat (mg/kg)	LD50 Dermal - Rabbit (mg/kg)	LC <sub>50</sub> Inhalation-Rat (mg/l)
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	>5000	> 2000	2.18 mg/L (4 hr)
d-Limonene	5989-27-5	4400	> 2000	N/A
Distillates (petroleum), hydrotreated light	64742-47-8	N/A	N/A	N/A
Butane (propellant blend)	106-97-8	N/A	N/A	658 g/L (4 hr)
Propane (propellant blend)	74-98-6	N/A	N/A	N/A

##### SKIN CORROSION/IRRITATION:

Causes skin irritation.  
Classified as Skin Irritant - Category 2.

##### SERIOUS EYE DAMAGE/IRRITATION:

Causes serious eye irritation.  
Classified as Eye Irritant - Category 2.

##### RESPIRATORY OR SKIN SENSITIZATION:

May cause an allergic skin reaction.  
Classified as Skin Sensitization - Category 1.

##### 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:

May cause drowsiness or dizziness.  
Classified as Specific Target Organ Toxicity (Single Exposure) - Category 3

##### STOT-REPEATED EXPSURE:

Based on available data, the classification criteria are not met.

##### ASPIRATION HAZARD:

May be fatal if swallowed and enters the airways.  
Classified as Aspiration Hazard - Category 1.

#### 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: Toxicity testing has not been completed on the mixture.

Based on available data, mixture is classified as Aquatic Chronic - Category 3.

Component	CAS #	LC50 - 96 hr	EC50-48 hr	LC50
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	vertebrate, > 5000 mg/ml	Daphnia magna, 1000 mg/l	Not available
d-Limonene	5989-27-5	vertebrate, 702 mg/ml	Daphnia magna, 0.577 mg/l	algae, NOEC, 4.08 mg/l
Distillates (petroleum), hydrotreated light	64742-47-8	Not available	Not available	Not available
Butane (propellant blend)	106-97-8	Not available	Not available	Not available
Propane (propellant blend)	74-98-6	Not available	Not available	Not available

#### 12.2 PERSISTANCE AND DEGRADABILITY:

Testing has not been completed on the mixture.

Component	CAS #	Biodegradation
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	Not available
d-Limonene	5989-27-5	readily biodegradable
Distillates (petroleum), hydrotreated light	64742-47-8	Not available
Butane (propellant blend)	106-97-8	Not available
Propane (propellant blend)	74-98-6	Not available

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



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Component	CAS #	Partition coefficient n-octanol/water (Log Kow)	Bioconcentration factor (BCF)
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	Not available	Not available
d-Limonene	5989-27-5	4.38	1022
Distillates (petroleum), hydrotreated light	64742-47-8	Not available	Not available
Butane (propellant blend)	106-97-8	Not available	Not available
Propane (propellant blend)	74-98-6	Not available	Not available

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

Component	CAS #	Soil Organic Carbon-Water Partitioning Coefficient (Koc)
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	Not available
d-Limonene	5989-27-5	1984
Distillates (petroleum), hydrotreated light	64742-47-8	Not available
Butane (propellant blend)	106-97-8	Not available
Propane (propellant blend)	74-98-6	Not available

**12.5 RESULTS OF PBT AND vPvB ASSESSMENT:** Not applicable.

**12.6 OTHER ADVERSE EFFECTS:** No data available.

**12.7 ADDITIONAL INFORMATION:** Toxic to aquatic life with long lasting effects.

### 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: 16 05 04\*

### SECTION 14: TRANSPORT INFORMATION

**14.1 UN NUMBER:** UN1950

**14.2 UN PROPER SHIPPING NAME:** Aerosols, flammable (each not exceeding 1L capacity)

**14.3 TRANSPORT HAZARD CLASSES:** 2.1

**14.4 PACKING GROUP:** N/A

**14.5 ENVIRONMENTAL HAZARDS:** N/A

#### 14.6 SPECIAL PRECAUTIONS FOR USER:

Product is shipped as Limited Quantity; as permitted by hazard class and quantity limits.

#### IMDG

Emergency Schedules (EmS): Fire F-D, Spillage S-U

Stowage and Segregation: SW1, SW22, SG69

Marine Pollutant: None

#### ADR/RID

Class: 2

Item Number: N/A

Classification Code: 5F

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



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#### 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:

June 14, 2016 - Logo, minor edits

##### ABBREVIATIONS:

N/A - Not applicable

N/E - Not Established

N/L - Not Listed

##### DETERGENT/CLEANER LABELING (EC/648/2004):

≥ 15% - <30% - d-Limonene (allergenic fragrance)

>30% - aliphatic hydrocarbons

##### FULL TEXT OF HAZARD STATEMENTS:

H220 Extremely flammable gas.

H226 Flammable liquid and vapour.

H350 May cause cancer.

H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects.

##### FULL TEXT OF PRECAUTIONARY STATEMENTS:

P301+310+331 IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P333+313 If skin irritation or rash occurs: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse

P304+340+312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

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

P337+313 If eye irritation persists: Get medical advice/attention.

P272 Contaminated work clothing should not be allowed out of the workplace.

P391 Collect spillage.

<sup>†</sup>Note on dangerous component - Distillates (petroleum), hydrotreated heavy naphthenic (EC# 265-155-0) – The polycyclic aromatic content of this component is 1.8% via IP346 method; therefore carcinogenic classification need not apply.

##### ISSUED BY:

Chemical/R&D Department

Amano Pioneer Eclipse Corporation