



SAFETY DATA SHEET

Conforms to 1907/2006/EC - (EU) 2020/878

Issued: 21-Dec-2022

Supersedes: 13-Jun-2016

HARDCORE™

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

1.1 PRODUCT IDENTIFIER

Product Name: HardCore Densifying Treatment Product Number: 422
UFI: S751-C0NC-5009-UCFW

1.2 RELEVANT IDENTIFIED USES OF THE MIXTURE AND USES ADVISED AGAINST

Product intended for commercial and industrial use only.
Intended Use: Densifier for concrete. 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.
Skin Irritation - Category 2
Eye Irritation - Category 2

2.2 LABEL ELEMENTS

Signal Word: Warning

Hazard pictogram:



Contains: Lithium silicate, Potassium methylsilanetriolate

Hazard Statements:

H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary Statement(s):

P264 Wash thoroughly after handling.
P280 Wear protective gloves and eye protection/face protection.
P302+P352+P332+P313 IF ON SKIN (or hair): Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

2.3 OTHER HAZARDS No other hazards are known to the supplier

**SAFETY DATA SHEET**

Conforms to 1907/2006/EC - (EU) 2020/878

Issued: 21-Dec-2022

Supersedes: 13-Jun-2016

HARDCORE™**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)*
Lithium silicate	235-730-0	4 - 7	12627-14-4	Skin Irrit 2 Eye Irrit 2 STOT SE 3	H315 H319 H335
Potassium methylsilanetriolate	250-807-9	1 - <3	31795-24-1	Skin Corr 1A	H314

See section 16 for the full text of R phrases and Hazard Statements*SECTION 4: FIRST AID MEASURES****4.1 DESCRIPTION OF FIRST AID MEASURES**

- Eye Contact:** Flush eyes with plenty of water, for at least 15 minutes. If easy to do, remove contact lenses if worn. If irritation persists, seek medical attention.
- Skin Contact:** Wash with soap and plenty of water. If irritation persists, seek medical attention.
- Inhalation:** If breathing is difficult, remove subject to fresh air. If symptoms persist, seek medical attention.
- Ingestion:** Call a physician or poison control center. Do not induce vomiting. Seek medical advice.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- Eye Contact:** Can be irritating to eyes.
- Skin Contact:** Can be irritating to eyes.
- Inhalation:** Spray mist may cause irritation to nose, throat and lungs.
- Ingestion:** May cause irritation to mouth, esophagus and stomach.

4.3 INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Treat symptomatically.

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

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

5.2 SPECIAL HAZARDS ARISING FROM THE MIXTUREHazardous combustion products: CO, CO₂

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.

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

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.



SAFETY DATA SHEET

Conforms to 1907/2006/EC - (EU) 2020/878

Issued: 21-Dec-2022

Supersedes: 13-Jun-2016

HARDCORE™

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Avoid contact with eyes and skin. Wash thoroughly after handling. Use in well-ventilated areas.

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. Do not mix with other chemicals unless stated on the product label.

7.3 SPECIFIC END USE(S): No information available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Components do not have established work exposure limits.

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: Wear eye protection/face protection.
Safety glasses or goggles (EN166).

Hand Protection: Wear chemical resistant gloves. (EN374).
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)

Hygiene Measures: Do not eat, drink or smoke when using this product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Colour:	Clear, colorless
Odour:	No added fragrance
Melting point/Freezing point:	No test data available
Boiling point/Boiling range:	No test data available
Flammability:	Does not maintain combustion.
Lower and upper explosion limits:	No test data available
Flash Point:	> 93 °C [Method: Closed cup, ASTM D 56]
Auto-ignition temperature:	No test data available
Decomposition temperature:	No test data available
pH:	11.0 (as supplied) [Method: ASTM E 70]
Kinematic viscosity:	< 10 centipoise @ 20°C [Method: Rotational viscometer, Brookfield]
Solubility:	Water, completely soluble
Partition coefficient n-octanol/water [log Pow]:	No test data available
Vapor pressure:	No test data available
Density:	1.06 kg/L @ 20°C [Method: Pycnometer, ASTM D 1475]
Relative vapor density:	No test data available
Particle characteristics:	Not applicable to liquids

**SAFETY DATA SHEET**

Conforms to 1907/2006/EC - (EU) 2020/878

Issued: 21-Dec-2022

Supersedes: 13-Jun-2016

HARDCORE™**9.2 OTHER INFORMATION****9.2.1 - Information with regard to physical hazard class:**

Oxidising properties: Not established

Explosive properties: Not established

9.2.2 - Other safety characteristics:

Relative evaporation rate (butylacetate=1): No test data available

VOC: < 50 g/L

SECTION 10: STABILITY AND REACTIVITY

- 10.1 REACTIVITY:** Stable under normal conditions.
- 10.2 CHEMICAL STABILITY:** Stable under normal conditions.
- 10.3 POSSIBILITY OF HAZARDOUS REACTIONS:** None expected under normal conditions.
- 10.4 CONDITIONS TO AVOID:** None known under normal conditions.
- 10.5 INCOMPATIBLE MATERIALS:** 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 HAZARD CLASSES AS DEFINED IN REGULATION (EC) 1272/2008****ACUTE TOXICITY:** Toxicity testing has not been completed on the mixture.ATE_{mix} (oral): > 2000 mg/kg Not classified as Acutely Toxic (oral).ATE_{mix} (dermal): > 2000 mg/kg Not classified as Acutely Toxic (dermal).ATE_{mix} (inhalation): > 20 mg/l (4 hr/vapour) Not classified as Acutely Toxic (inhalation).

Component	CAS #	LD50 Oral	LD50 Dermal	LC50 Inhalation (Dust/Mist)
Lithium silicate	12627-14-4	2,500 mg/kg	data not available	data not available
Potassium methylsilanetriolate	31795-24-1	2,000 mg/kg	data not available	data not available

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:** 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:** Based on available data, the classification criteria are not met.**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 INFORMATION ON OTHER HAZARDS****11.2.1 Endocrine disrupting properties:** None known**11.2.2 Other information:** 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.
Based on available data, this product is not classified as hazardous to the environment.
Component details are given below:

**SAFETY DATA SHEET**

Conforms to 1907/2006/EC - (EU) 2020/878

Issued: 21-Dec-2022

Supersedes: 13-Jun-2016

HARDCORE™

Component	CAS #	LC50 fish (96 h)	EC50 Daphnia (48 h)	EC50 algae (72 h)
Lithium silicate	12627-14-4	260 - 1108 mg/L	220 - 800 mg/L	207 - 345 mg/L
Potassium methylsilanetriolate	31795-24-1	500 mg/L	500 mg/L	3.6 - 120 mg/L

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

Component	CAS #	Biodegradation
Lithium silicate	12627-14-4	Inorganic
Potassium methylsilanetriolate	31795-24-1	data not available

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

Component	CAS #	Partition coefficient n-octanol/water (Log Kow)	Bioconcentration factor (BCF)
Lithium silicate	12627-14-4	data not available	data not available
Potassium methylsilanetriolate	31795-24-1	-2.36	data not available

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

Component	CAS #	Soil Organic Carbon-Water Partitioning Coefficient (Koc)
Lithium silicate	12627-14-4	data not available
Potassium methylsilanetriolate	31795-24-1	data not available

12.5 RESULTS OF PBT AND vPvB ASSESSMENT: Not applicable.**12.6 ENDOCRINE DISRUPTING PROPERTIES:** None known**12.7 OTHER ADVERSE EFFECTS:** No additional information available.**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 03 05* - Organic wastes containing hazardous substances

SECTION 14: TRANSPORT INFORMATION

Product is not regulated as hazardous for transport.

14.1 UN NUMBER: None**14.2 UN PROPER SHIPPING NAME:** None**14.3 TRANSPORT HAZARD CLASSES:** None**14.4 PACKING GROUP:** None**14.5 ENVIRONMENTAL HAZARDS:** None**14.6 SPECIAL PRECAUTIONS:** None**14.7 MARITIME TRANSPORT IN BULK ACCORDING TO IMO INSTRUMENTS:** Product is not transported in bulk.**SECTION 15: REGULATORY INFORMATION****15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE MIXTURE**

Does not contain substances or labelled product uses subject to REACH Annex XVII restriction.

See Annex XVII of Regulation (EC) 1907/2006 for Designation of the substances and Conditions of restriction.

Contains no substance on the REACH candidate list $\geq 0,1$ % / SCL

Contains no REACH Annex XIV substances

Contains no substance subject to EU 649/2012

Contains no substance subject to EU 2019/1021

15.2 CHEMICAL SAFETY ASSESSMENT: No information available.



SAFETY DATA SHEET

Conforms to 1907/2006/EC - (EU) 2020/878

Issued: 21-Dec-2022

Supersedes: 13-Jun-2016

HARDCORE™

SECTION 16: OTHER INFORMATION

REVISION INFORMATION:

21-Dec-2022 - Revisions per (EU) 2020/878; § 1, 2, 6, 8, 9, 10, 11, 12, 14, 15 & 16

ABBREVIATIONS:

ATE	Acute Toxicity Estimate
CAS No.	Chemical Abstract Service Number
CLP	Classification Labeling Packaging Regulation (EC) 1272/2008
EC50	Median Effective Concentration.
EC No.	European Union Identification Number
IMO	International Maritime Organization
LC50	Median Lethal Concentration
LD50	Median Lethal Dose
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation, (EC) 1907/2006
SDS	Safety Data Sheet
STEL	Short-Term Exposure Limit
TWA	Time Weighted Average
UFI	Unique Formula Identifier
UN	United Nations
VOC	Volatile Organic Compound
vPvB	Very Persistent and Very Bioaccumulative

CLASSIFICATION ACCORDING TO EC 1272/2008:

Classification and procedure used to derive the classification for mixture:		
Skin Irritation Category 2	H315	Calculation Method
Eye Irritation Category 2	H319	Calculation Method

FULL TEXT OF HAZARD STATEMENTS:

H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

FULL TEXT OF PRECAUTIONARY STATEMENTS:

P321	Specific treatment (see ... on this label).
------	---

ISSUED BY:

Chemical/R&D Department
Amano Pioneer Eclipse Corporation

Neither this data sheet nor any statement contained herein grants or extends any license, expressed or implied, in connection with patents issued or pending which may be the property of the manufacturer or others. The information in this data sheet has been assembled by the manufacturer based on its own studies and the work of others. The manufacturer makes no warranties, expressed or implied, as to the accuracy, completeness or adequacy of the information contained herein. The manufacturer shall not be liable (regardless of fault) or the vendee, the vendee's employees or anyone for any direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnish of such information.