



Safety Data Sheet

1. COMPANY AND PRODUCT IDENTIFICATION

Duncan Enterprises
5673 East Shields Avenue
Fresno, CA 93727
559-291-4444
559-291-9444 (Fax)
www.duncan.com

EMERGENCY TELEPHONE NUMBERS

Health Emergencies:
559-291-4444 7:00 am – 3:30 pm Pacific Std. Time
Spill and Off-Hour Health Emergencies:
800-424-9300 U.S. and Canada
703-527-3887 Outside U.S. and Canada (Collect)

Product Name: Duncan Crystal Glazes – CR900 & CR850 Series
Product Use/Description: Ceramic Underglazes
Restrictions on use: None known.

2. HAZARDS IDENTIFICATION

Classification:	This mixture does not meet the criteria for classification.
Hazard Statement:	This substance does not meet the criteria for classification.
Other Hazards:	None.
Signal Word:	None.
Precautionary Statement:	None.
Pictogram(s) by GHS:	None.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Detailed formulation is submitted by the client and it is proprietary information.
Products are made by physical manipulation and chemical reaction from the ingredients. These ingredient chemicals may not exist as its original formula in final products.
Reportable ingredients (if applicable): None.

4. FIRST AID MEASURES

General Advice:	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
On Inhalation:	Seek fresh air. Seek medical attention if discomfort continues.
On Skin Contact:	Wash area with soap and water. Get medical attention if irritation develops or persists.
On Eye Contact:	Flush eyes with water as a precaution. Get medical attention if any discomfort develops or persists.
On Ingestion:	Drink 1 or 2 glasses of water. Only induce vomiting at the instruction of medical personnel. Never give anything to
Acute/Delayed Symptoms:	Direct contact with eyes may cause temporary irritation.
Medical Advice:	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media	
Suitable extinguishing media:	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media:	Not available.
Protection of Firefighters	



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Specific hazards arising from the chemical:	During fire, gases hazardous to health may be formed.
Protective equipment for firefighters:	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Special precautions for fire fighters:	Use standard firefighting procedures and consider the hazards of other involved materials.
Will hazardous combustion occur?:	Will not occur.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Ensure adequate ventilation.
Environmental Precautions:	Do not discharge into drains, water courses or onto the ground. Avoid discharge into water courses or onto the ground.
Methods for Cleaning Up:	Absorb spillage with suitable absorbent material. Flush area with water. Avoid discharge into drains, water courses or onto the ground.
Emergency Procedures:	Keep unnecessary personnel away.
Recommended Personal Protective Equipment:	See Section 8 of this SDS.

7. HANDLING AND STORAGE

Safe Storage:	Store in closed original container in a dry place. Keep containers closed when not in use. Store away from incompatible materials. Storage temperature: between 4°C/40°F and 37°C/100°F. Keep from freezing.
Safe Handling:	No specific usage precautions noted.
Known Incompatibilities:	Keep from freezing.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

Occupational Exposure Limits: No specific usage precautions noted.

Appropriate Engineering Controls: No special requirements under ordinary conditions of use and with adequate ventilation.

Individual Protection measures, such as PPE (Personal Protective Equipment):

Personal Protection Equipment:	
Respiratory Protection:	Under normal conditions, respirator is not normally required.
Eye Protection:	If risk of splashing, wear safety goggles or face shield.
Hand Protection:	No protection is ordinarily required under normal conditions of use.
Skin Protection:	No protection is ordinarily required under normal conditions of use.
Thermal Protection:	Wear appropriate thermal protective clothing, when necessary.
General Safety and Hygiene Measures:	Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State/Appearance:	Liquid
Color:	Various
Odor:	Odorless



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Odor Threshold:	N/A
pH:	7 – 10
Boiling Point/Range:	100°C (212°F)
Melting Point/Range:	1000°C (1832°F) / 0°C (32°F) (Approximate)
Flash Point:	N/A
Evaporation Rate:	1 (Water=1)
Vapor Density:	N/A
Solubility(ies):	Miscible with water.
Vapor Pressure:	17.5 mm Hg (20°C/68°F)
Relative Density:	1.3 – 1.8
Viscosity:	N/A
Partition Coefficient (n-octanol/water), if applicable:	No data available.
Explosive Properties:	N/A
Flammability: (Solid, gas)	N/A
Flammability Limit in Air: Upper/Lower	N/A
Autoignition temperature:	Not applicable.
Decomposition temperature:	N/A

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.
Incompatible Materials:	None known.
Hazardous Decomposition Products:	In case of fire and/or explosion do not breathe fumes.
Possibility of Hazardous Reactions:	Will not occur.
Reactivity:	The product is stable and non-reactive under normal conditions of use, storage, and transport.
Hazardous polymerization:	In case of fire and/or explosion do not breathe fumes.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Eye Contact –Serious Eye Damage or Irritation	May cause minor irritation on eye contact.
Skin Contact – Skin Corrosion, Sensitization or Irritation:	Health injuries are not known or expected under normal use.
Ingestion – Carcinogenicity/Aspiration Hazard:	Health injuries are not known or expected under normal use.
Inhalation – Respiratory Sensitization/Toxicity:	Health injuries are not known or expected under normal use.
Symptoms related to the physical chemical and toxicological characteristics:	None known.
Information on toxicological effects:	None known.
Delayed or Immediate effects:	None known.
Germ Cell Mutagenicity:	None known.
Specific target organ toxicity (single exposure):	None known.
Specific target organ toxicity (repeated exposure):	None known.



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Chemicals listed on NTP, IARC or OSHA as a Carcinogen?:	This product is not considered a carcinogen by IARC, ACGIH, NTP, or OSHA.			
<u>Chemical Name:</u> None	<u>Oral LD50</u> X	<u>Dermal LD50</u> X	<u>Inhalation LC50</u> X	<u>Percentage</u> X

*Estimates for product may be based on additional component data not shown.

12. ECOLOGICAL INFORMATION (NON-MANDATORY)

Ecotoxicity:	This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability:	No data available.
Bioaccumulative potential:	No data available.
Aquatic / Terrestrial warnings:	No data available.
Mobility in soil:	No data available.
Other adverse effects:	None known.

13. DISPOSAL CONSIDERATIONS (NON-MANDATORY)

Disposal instructions:	Dispose of in accordance with local regulations. Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.
Contaminated packaging:	Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORTATION INFORMATION (NON-MANDATORY)

	<u>DOT</u>	<u>IMDG</u>	<u>IATA</u>
UN/ID number:	Not regulated.	Not regulated.	Not regulated.
Proper shipping name:			
Transport hazard class:			
Packing group (if applicable):			
Environmental Provisions:			
Special Precautions:			
Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code	Not regulated.		
Emergency Response Guide Number: No data.	EmS-No:	No data.	

Pictograms

<u>US:</u> X	<u>IATA: IMDG:</u> X	<u>Marine Pollutant:</u> X
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15. REGULATORY INFORMATION (NON-MANDATORY)

US Federal Regulations:	
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D):	No data.
CERCLA (Superfund) reportable quantity (lbs.) (40 CFR 302.4)	No data.



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OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):			No data.		
Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):			No data.		
Chemical Name:	CAS Number:	Reportable Quantity:	Threshold planning quantity:	Threshold planning quantity, lower value:	Threshold planning quantity, upper value:
None	X	X	X	X	X
Superfund Amendments and Reauthorization Act of 1986 (SARA)					
SARA 304 Emergency release notification:			No data.		
SARA 311/312 (40 CFR 370) Hazardous Chemical:			No data.		
SARA 313 (TRI reporting):			<u>Chemical Name:</u> No data.	<u>CAS Number:</u>	<u>% by wt.</u>
Drug Enforcement Administration (DEA) (21 CFR 1308.11-15):			No data.		
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (Haps) List:			No data.		
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):			No data.		
Safe Drinking Water Act (SDWA):			No data.		
Canadian Domestic Substances List (DSL):			No data.		
State Regulations					
TSCA:			This product is manufactured in compliance with all provisions of the Toxic Substances Control Act, 15 U.S. C. 2601 et. Seq.		
FDA:			21 CFR 175.105		
SARA/Title III:			This product does not contain any substances at or above the reported threshold under Section 313, based on available data.		
Conforms to Non-Toxic ASTM-4236:			Products are certified in a program of toxicological evaluation by a nationally recognized toxicologist to contain no materials in sufficient quantities to be toxic or injurious to humans or to cause acute or chronic health problems. These products are certified to be labeled in accordance with the voluntary chronic hazard labeling standard ASTM D-4236. In addition, there is no physical hazard as defined within 29 CFR Part 1910.1200(c).		
California Proposition 65 Warning:			This product contains the following chemicals that are known to the State of California to cause cancer, birth defects, or other reproductive harm: None		
HMIS III Rating:					
Unless a concentration is specified in Section 2 of the SDS, the above chemical(s) are present in trace amounts.					



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16. OTHER INFORMATION

The recommendations and information contained in this SDS have been compiled from sources believed to represent the most current information available when the SDS was prepared. However, the manufacturer / distributor of this product does not provide any warranty, guaranty of representation as to the correctness or sufficient of this information. If this material is used in large amounts and/or an unusual manner, the user is obliged to determine what safety measures are appropriate, including the applicable and relevant workplace and environmental regulations pertaining to handling, use and disposal.

Table of Abbreviations

ACGIH:	American Conference of Governmental Industrial Hygienists	LD:	Lethal Dose
ANSI:	American National Standards Institute	MARPOL:	Marine Pollution
ASTM:	American Society for Testing Materials	mg / kg:	Milligram per Kilogram
°C:	Degrees Centigrade	mm:	Millimeter
CAA:	Clean Air Act	MSHA:	Mine Safety and Health Administration
CAS:	Chemical Abstract Service	N/A:	Not Applicable
CERCLA:	Comprehensive Environmental Response, Compensation & Liability Act	NFPA:	National Fire Protections Association
CFR:	Code of Federal Regulations	NIOSH:	National Institute for Occupational Safety and Health
CPR:	Controlled Products Regulations	NTP:	National Toxicology Program
DEA:	Drug Enforcement Act	OEL:	Over Exposure Limit
DOT:	Department of Transportation	OSHA:	Occupational Safety and Health Administration
DSL:	Canadian Domestic Substances List	PEL:	Permissible Exposure Limits
EmS:	Emergency Medical Goods Services	ppm	Parts Per Million
EPA:	Environmental Protection Agency	SARA	Superfund Amendment and Reauthorization Act
°F:	Degrees Fahrenheit	STEL	Short-Term Exposure Limit
FDA:	Food & Drug Administration	SDS:	Safety Data Sheet
g/l:	Grams per Liter	SDWA:	Safe Drinking Water Act
HAPs:	Hazardous Air Pollutants	TLV:	Threshold Limit Value
Hg:	Mercury	TRI:	Toxics Release Inventory
HMIS:	Hazardous Materials Identification System	TSCA	Toxic Substances Control Act
HNOC:	Hazard(s) Not otherwise classified	TWA	Time – Weighted Average
IARC:	International Agency for Research on Cancer	U.N.	United Nations
IATA:	International Air Transport Association	WHMIS	Workplace Hazardous Materials Information System
ID:	Identification / Identity	>	Greater Than
IDLH:	Immediate Danger to Life or Health	<	Less Than
IMDG:	International Maritime Dangerous Goods	73/78:	1973 & 1978
LC:	Lethal Concentration		

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END SAFETY DATA SHEET