MATERIAL SAFETY DATA SHEET

1. COMPANY AND PRODUCT IDENTIFICATION

DUNCAN ENTERPRISES
5673 East Shields Avenue
Fresno, CA 93727
559-291-4444
559-291-9444 (Fax)

EMERGENCY TELEPHONE NUMBERS

Health Emergency:	559-291-4444	7:00 am – 3:30 pm Pacific Standard 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 OG 805 PREMIUM GOLD**
Product Category: Solvent - Based Metallic Overglaze

2. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components	OSHA PEL	ACGIH TLV	CAS #	Weight %
Camphor	2 ppm	2 ppm	76-22-2	10 - 15
Organo Chromium Compound (as Cr)*	0.5 mg/m^3	0.5 mg/m^3	----------	< 1
Cyclohexanol	50 ppm (skin)	50 ppm (skin)	108-93-0	1 - 5
Cyclohexanone	50 ppm	25 ppm	108-94-1	1 - 5
*o-Dichlorobenzene	50 ppm (C)	25 ppm	95-50-1	1 - 5
Turpentine	100 ppm	100 ppm	8006-64-2	5 - 10

Other Information
*Withheld as a trade secret
(C) Ceiling Limit Value

3. HAZARDS IDENTIFICATION

HMIS Hazard Ratings for Product

Health:	**3***	0 = Minimal
Flammability:	**4**	1 = Slight
Reactivity:	**0**	2 = Moderate
Personal Protection:	**See Section 8**	3 = Serious
		4 = Severe
		* = Chronic Effects

Routes of Exposure
Exposure may be by inhalation and / or skin or eye contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

Effects of Overexposure
Irritation of eyes, skin, and upper respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

Signs and Symptoms of Overexposure
Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists. Redness and itching or burning sensation may indicate eye or excessive skin exposure.

Cancer Information
For complete discussion of toxicology data refer to Section 11.

4. FIRST AID MEASURES

Eye contact: Rinse with clean water or saline solution for at least 15 minutes. Seek medical advice if irritation persists.

Skin contact: Remove contaminated clothing and wash skin with soap and water. Wash or clean before reuse.

Inhalation: Remove from exposure to fresh air. Give artificial respiration if not breathing. If breathing is difficult, give oxygen. Contact a physician immediately.

Ingestion: Rinse mouth with water and give water or milk to drink. Do not induce vomiting. Do not give anything by mouth to an unconscious person. Contact a physician immediately.

5. FIRE FIGHTING MEASURES

Flash Point: 118° F (48° C) Setaflash Closed Cup

Flammable Limits **LEL :** N/A **UEL :** N/A

Extinguishing Media

CO_2, dry chemical or Chemical Foam. Water may be ineffective, but may be used to control exposed containers.

Special Fire Fighting Procedures

Fire Fighters should wear NIOSH/MSHA approved pressure demand self-contained breathing apparatus.

Unusual Fire And Explosion Hazards

Toxic fumes of metals and vapors may be evolved in a fire.

6. ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Released Or Spilled

Use appropriate personal protective equipment during clean up operations. Promptly absorb spill using inert materials such as sand, vermiculite or sawdust. Remove all sources of ignition. Cover drains to prevent entry into waterways. If a Reportable Quantity is exceeded for any ingredients, contact the National Response Center.

7. HANDLING AND STORAGE

Precautions To Be Taken In Handling And Storing

Store in sealed containers in a cool, dry place. Keep away from heat, open flame, and sources of ignition. Store as flammable liquid.

Other Precautions

Follow good industrial hygiene and housekeeping practices. Do not eat, drink or smoke while using this material. After using product, wash hands before eating, drinking, smoking, or applying cosmetics, and at the end of the work shift. Avoid contact with eyes, skin, or clothing.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

Respiratory Protection (Specify Type)

If there is a possibility that the TLVs or PELs may be exceeded, a NIOSH/MSHA approved respirator with organic vapor cartridge represents the minimum level or respiratory protection. To insure proper respirator selection and use, refer to the requirements of 29 CFR 1910.134 and the latest edition of ANSI Z 88.2.

Ventilation

Local Exhaust:	Fume hood at point of generation with sufficient exhaust
Mechanical (General):	Must be sufficient to remove vapors from breathing zone
Protective Gloves:	Solvent impermeable gloves
Eye Protection:	Safety glasses or goggles

8. EXPOSURE CONTROL AND PERSONAL PROTECTION (Continued)

Other Protective Clothing
Or Equipment: Eye bath and safety shower.
Work/Hygienic Practices: Wear disposable protective clothing to facilitate recovery of any materials spilled. Use adequate ventilation.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Brown liquid with characteristic odor
Specific Gravity (Water = 1):	> 1
Boiling Point:	N/A
Evaporation Rate (butyl acetate = 1):	> 1 (Slower than Butyl Acetate)
Melting Point:	N/A
Vapor Density (Air = 1):	> 1 (Heavier than air)
Vapor Pressure:	N/A
Water Solubility, %:	Insoluble
Percent Volatiles by Volume:	Not less than 25%
PH:	N/A
Flash Point:	118° F (48° C) (Setaflash Closed Cup)

10. STABILITY AND REACTIVITY

Stability **Unstable:** **Stable:** X
Conditions To Avoid
Avoid heating substance where it may be inhaled, open flames, oxidizers and sources of ignition. Solvent vapors are heavier than air and can accumulate, travel to sources of ignition and flash back.
Incompatibility (Materials To Avoid)
Oxidizers such as chlorates, perchlorates, permanganates, and nitrates. If the preparation comes into contact with ammonia, explosive gold compounds may be formed. Ammoniacal gold solutions should never be stored.
Hazardous Decomposition or Byproducts
Carbon dioxide, carbon monoxide, hydrochloric acid, oxides of sulfur and carbonaceous fumes.
Hazardous Polymerization **May Occur:** **Will Not Occur:** X

11. TOXICOLOGICAL INFORMATION

Routes of entry under normal conditions of use
Eyes: No **Inhalation:** Yes **Skin:** Yes **Ingestion:** No

Toxicological Information:
There is no specific toxicological data available for this preparation. Any toxicological information is based on individual components that make up this material.

Target Organ Effects:
Camphor – Central nervous system, eye, skin, respiratory system
Chromium compounds – Skin
Cyclohexanol – Eyes, skin, respiratory system
Cyclohexanone – Eyes, skin, respiratory system, central nervous system
0-dichlorobenzene – Respiratory system, gastrointestinal tract
Turpentine – Skin, eyes, kidneys, respiratory system

11. TOXICOLOGICAL INFORMATION (Continued)

Carcinogenicity:
The following chemicals are listed as carcinogens by NTP, IARC, and / or OSHA:
Chromium Compounds (NTP)
Effects of Overexposure:
Eyes: Short-term liquid or vapor contact may result in slight eye irritation. Prolonged and repeated contact may be more irritating.
Skin: Prolonged and repeated liquid contact can cause defatting and drying of the skin, which may result in skin irritation and dermatitis.
Inhalation: Solvents can act as central nervous system depressants, exhibiting narcotic and anesthetic effects. Overexposure to some of these components may cause headaches, nausea, vomiting, drowsiness, diarrhea, liver and kidney damage.

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method
Return accumulated residues to refinery for metals recovery. Follow local, state and federal regulations for packaging, labeling, manifesting, transportation and disposal.

14. TRANSPORT INFORMATION

U.S. Department of Transportation Information

DOT Shipping Name: Consumer Commodity ORM-D
DOT Hazard Class: Glazes or Stains OA/OG 88690 Sub. 1
U.N. Number: 1950

15. REGULATORY INFORMATION

TSCA Certification
All chemicals in this product are listed, or are exempt from listing, on the TSCA inventory.

SARA Title III Section 313 Reportable Chemicals:
Chromium Compounds
o-Dichlorobenzene

This product contains one or more components which are subject to government restrictions concerning use. Therefore, this product is to be used only for the applications specified below:
1. Ceramic decorative paint for use in the pottery, glass or ceramic industry
2. Electronic Circuitry

Should you re-sell this product to a processor or industrial user, advise them of this restriction.

Right to Know Information

Component	CAS #
Camphor	76-22-2
Chromium Octanoate	20195-23-7
Cyclohexanol	108-93-0
Cyclohexanone	108-94-1
Monochlorobenzene	108-90-7
o-Dichlorobenzene	95-50-1
Turpentine	8006-64-2

15. REGULATORY INFORMATION (Continued)

Right to Know Information (Continued)
Component
Resin TSRN 80100353-5039p
Resin TSRN 80100353-5010p
Reodorant TSRN 80100419-5016p
Organo Gold Compound TSRN 80100353-5030p
Terpene Hydrocarbon TSRN 80100419-5028p

California Proposition 65
WARNING: Cyclohexanol is known to the State of California to cause male reproductive harm.

Products bearing the Caution Label are certified to be properly labeled in a program of toxicological evaluation by a nationally recognized toxicologist. The products are certified by the toxicologist to be labeled in accordance with the chronic hazard labeling standard ASTM D-4236.

16. OTHER INFORMATION

References:
Barclays California Code of Regulations
NIOSH Pocket Guide to Chemical Hazards
The Sigma Aldrich Library of Regulatory and Safety Data
29 CFR 1910.1000, Z-tables
ACGIH TLV for Chemical Substances and Physical Agents

Table of Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
AICS	Aboriginal Independent Community Schools
ANSI	American National Standards Institute
ASTM	American Society for Testing Materials
°C	Degrees Centigrade
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CPR	Controlled Products Regulations
DOT	Department of Transportation
DSL	Domestic Substances List
ECL	Education Counseling Service
EINECS	European Inventory of Existing Commercial Chemical Substances
ENCS	Existing and New Chemical Substances
EPA	Environmental Protection Agency
°F	Degrees Fahrenheit
FDA	Food & Drug Administration
Hg	Mercury
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMO	International Maritime Organization
LD	Lethal Dose

16. OTHER INFORMATION (Continued)

Table of Abbreviations (Continued)

mg / kg	Milligram per kilogram
MITI	Ministry of International Trade and Industry
mm	Millimeter
MSDS	Material Safety Data Sheet
MSHA	Mine Safety and Health Administration
N / A	Not Applicable
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
ppm	Parts per million
SARA	Superfund Amendment and Reauthorization Act
STEL	Short-Term Exposure Limit
TDG	Transport Dangerous Goods
TSCA	Toxic Substances Control Act
TWA	Time - Weighted Average
U.N.	United Nations
WHMIS	Workplace Hazardous Materials Information System
>	Greater Than
<	Less Than

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Revision Date: 06/23/05
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Disclaimer

The information given and the recommendations made herein apply to our product(s) alone and not combined with any other product(s). Such are based on our research and on data from other reliable sources and are believed to be accurate. No guarantee of accuracy is made. It is the purchaser's responsibility before using any product to verify this data under their own operating conditions and to determine whether the product is suitable for their purposes.