



Safety Data Sheet

U.S. Department of Labor

May be used to comply with Occupational Safety and Health Administration
 OSHA's Hazard Communication Standard, (Non-Mandatory Form)
 29 CFR 1910. 1200. Standard must be Form Approved
 consulted for specific requirements. OMB No.1218-0072

§ 1 – IDENTITY INFORMATION

Product Name (as used on label and list) DO 655, DO 505, DO 405
DUO Painting Oil Medium

Manufacturer Address HOLBEIN Works, Ltd.
 2-2-5, Ueshio, Chuo-ku, Osaka-shi,
 OSAKA 542-0064 JAPAN

Telephone Number for information 81-6-6191-7722
 Emergency Telephone Number 81-72-985-1223
 Date Prepared 2014-7-23
 Preparer ALAKI, Yutaka

§ 2- HAZARD IDENTIFICATION

Classification : Flammable Liquid, Category 3
 Hazard information : Irritant to eyes and skin. Inhalation of concentrated vapor irritates eyes and/or bronchial pathway, or may influence to central nerve.

Acute toxicity : Category 4
 Skin Irritation : Category 3
 Eye Effects : Category 2B
 Respiratory Sensitization : Category 1/Inhalation may cause allergy, asthma or dyspnea.
 Skin Sensitization : Category 1/Inhalation may cause allergic dermatitis.



§ 3. COMPOSITION / INGREDIENTS

Components (Specific Chemical Identity, Common Name(s))

Polymerized Linseed Oil *	CAS No. 67746-08-1
Synthetic Resin	CAS No. 69430-35-9
Mineral Spirit (Solvent) **	CAS No. 8052-41-3
Cobalt Naphthenate (Dryer)	CAS No. 61789-51-3
Polyoxyethylene Alkyl Ether (Surfactant)	CAS No. 68131-40-8

* : Vegetable drying oil (Triglyceride of Linolic, Linolenic, Oleic or Palmitic acid)

** : Fractionally distilled petroleum

§ 4. FIRST AID MEASURES

Inhalation : Remove to fresh air.
 Ingestion : Do NOT induce vomiting, except in case of excess swallowing.
 Ask immediately for medical doctor.
 Eyes : In case of eye contact, rinse with plenty of water and if necessary consult an eye specialist.
 Skin Contact : Upon skin contact, wash with plenty of water, soap or other non-irritating cleansing agents.

§ 5. FIRE AND EXPLOSION HAZARD DATA

Flammability : Flammable
Flash Point : 44.3°C
Autoignition Temp : 263°C

Extinguishing Method : Take off fire or other flammable materials, and use with extinguishing tools.
Extinguishing Media : Foam, Dry powder, CO₂
Unusual Fire and Explosion Hazards : None

§ 6. ACCIDENTAL RELEASE MEASURES

Step to Be Taken in Case Material Is Released or Spilled :
Take up with absorbent materials.
Prevention of Secondary Disaster : Take off fire or other flammable materials.
Personal Consideration : Use mechanical ventilation
Environmental Precautions : Prevent spills from entering storm sewers or drains.

§ 7. HANDLING AND STORAGE

Precautions to Be Taken in Handling and Storing : Avoid prolonged or repeated contact with skin and eyes.
Storage Requirements : Keep from fire or flammable materials. Do not allow product temperature to rise high.
Handling Procedures/Equipment : Treat as paint product.

§ 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls : Use mechanical ventilation when applying.
Personal Protection : Avoid inhaling aerosols.

§ 9. PHYSICAL / CHEMICAL CHARACTERISTICS

Appearance : Clear yellow liquid
Odor : Petroleum smell
pH : N/A
Boiling Point : 156~200°C
Specific Gravity (H₂O = 1) : 0.84
Solubility in Water : Dispersible

§ 10. HAZARD INFORMATION AND STABILITY

Physical Dangers : Flammable
Stability : Stable under normal state
Reactivity : None
Byproducts : Carbon dioxide, water and dioxide of cobalt.
Hazardous Decomposition or Byproducts : No thermal decomposition when stored and handled correctly.
Incompatibility (Materials to Avoid) : None
Corrosive Behavior : None

§ 11. TOXICOLOGICAL INFORMATION

Primary Routes of Entry : Dermal, eye contact, swallowing
Oral Toxicity (LD₅₀) : 20g/kg

Inhalation Toxicity : Inhalation of concentrated vapor irritates eyes and/or bronchial pathway, induces dizziness or headache, or influences to central nerve. Chronic inhalation of excess vapor may cause pneumonia. (Mineral spirit)

DUO Painting Oil 3/3

Effects of Acute Exposure : None known
Eye irritation : Usually irritant to the eye mucous membrane
Skin irritation : Long time or repeated contact may irritate to skin and may cause inflammation.

Repeated Exposure : Inhalation of mist may cause irritation of bronchial pathway and/or stupor.

Sensitization, Reproductive Toxicity : No data available on product.

Mutagenicity : Mutagenicity was not confirmed with testing on rat by typhoid bacilli, testing on mouse by lymphocyte or testing on rat by marrow cell. (Mineral spirit)

Carcinogenicity : IARC (The International Agency for Research on Cancer) classifies mineral spirit in Group 3, not classifiable agent as to its carcinogenicity to humans. (Mineral sprits)

Teratogenicity : Teratogenicity was not confirmed with testing on pregnant rat by vapor exposure between six to fifteen days in the 100ppm and 365 ppm. (Mineral sprits)

§ 12. ECOLOGICAL INFORMATION

Not been confirmed

§ 13. DISPOSAL CONSIDERATIONS

Disposal Considerations : To be incinerated.
Waste Disposal Method : Stained cloths or papers which has been used to wipe or so on are so flammable that they had better been wetted with water.

§ 14. TRANSPORT INFORMATION

Hazard Class : Class 3 (Flammable)
UN number : 1268

§ 15. REGULATORY INFORMATION

Conforms to ACMI, Art & Creative Materials Institute, under ASTM D 4236
Industrial Safety and Health Law : Flammable organic solvent
Fire Service Law : Dangerous Materials ; Group 4, Petroleum Category 2
Regulation to Control Dangerous Materials : Conforms to article 41 and below.
High Pressure Gas Safety Law : N/A

§ 16. OTHER INFORMATION

Notice : The information of this sheet is based on the present state of our knowledge and does not therefore guarantee certain properties.