



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: FIA REAGENT

Product Use: Chemical

UOP LLC
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USA
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Emergency Assistance - 24 hour Emergency Telephone Numbers:

USA (UOP LLC) : + 1-847-391-2123
USA (CHEMTREC) : + 1-800-424-9300
Canada (CANUTEC) : + 1-613-996-6666
Outside USA (CHEMTREC) : + 1-703-527-3887

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>INGREDIENT & CAS NO.</u>	<u>% WEIGHT</u>	<u>ACGIH TLV-TWA</u>	<u>OSHA PEL-TWA</u>	<u>UNITS</u>
Silica gel 7631-86-9	> 99	N.E.	N.E.	N.A.
Dinaphtho(1,2,3-cd:3',2',1'- lm)perylene-5,10-dione, dodecyl derivs 68411-74-5	< 1	N.E.	N.E.	N.A.
2-Naphthalenol, 1-((2-methyl-4-((2- methylphenyl)azo)phenyl)azo)- 85-83-6	< 1	N.E.	N.E.	N.A.
Clarified oils (petroleum), catalytic cracked 64741-62-4	< 1	N.E.	N.E.	N.A.

Abbreviations:

N.A.	- Not Applicable	RD	- Respirable Dust	Fu	- Fume	IS	- Insoluble
N.E.	- None Established	R	- Respirable Fraction	I	- Inhalable	FuD	- Fume and Dust
STEL	- Short Term Exposure Limit	F	- Respirable Fibers	TD	- Total Dust	SC	- Soluble Compounds

Emergency Overview:

Repeated or prolonged exposure may irritate eyes, skin and respiratory system.

Form: Powder

Color: Light brown

Potential Health Effects:

Primary Routes of Exposure: Contact with skin and eyes. Exposure may also occur via inhalation or ingestion if product dust is generated.

Skin Contact: Repeated or prolonged exposure may cause skin irritation.

Eye Contact: Dust and /or product may cause eye discomfort and/or irritation seen as tearing and reddening.

Ingestion: The product is considered to have a low order of oral toxicity.

Inhalation: Inhalation of product and/or dust may cause irritation of the respiratory system.

Chronic Effects: Prolonged or repeated inhalation of dust generated from this material may cause lung injury.

Carcinogenicity Classification:**International Agency for Research on Cancer (IARC):**

Scarlet Red (CAS# 85-83-6) - Unclassifiable as to carcinogenicity in humans (Group 3).

Silicon oxide (synthetic) - Unclassifiable as to carcinogenicity in humans (Group 3).

U.S. National Toxicology Program (NTP):

Neither the product nor the components are classified.

U.S. Occupational Safety and Health Administration (OSHA):

Neither the product nor the components are classified or regulated.

American Conference of Governmental Industrial Hygienists (ACGIH):

Neither the product nor the components are classified.

4. FIRST AID MEASURES

Eye contact: Flush immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.

Skin contact: REMOVE FROM SKIN IMMEDIATELY. Remove adhering matter immediately. Use waterless hand cleaner. Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Consult a physician.

After inhalation: Remove the victim into fresh air. If symptoms persist, call a physician.

After ingestion: Do not induce vomiting. Call a physician immediately.

Notes to physician: Toxicity following ingestion is believed to be low. Blurred vision.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media: Non-combustible. Use extinguishing media for surrounding fire.

Unsuitable extinguishing media: N.A.

Fire and explosion hazards: The product itself does not burn. The used product can retain material of a hazardous nature. Identify that material and inform the fire fighters.

Special protective equipment: In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit.

Flash Point: N.A.

6. ACCIDENTAL RELEASE MEASURES

Personal protection: See Section 8.

Environmental precautions: Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

Clean-up: Sweep, shovel or vacuum spilled product into appropriate containers (do not use a vacuum if material has contacted a hydrocarbon material). Pick-up and arrange disposal without creating dust. Never use spilled product. Spilled product should be disposed of in accordance with all applicable government regulations. (See Section 13).

7. HANDLING AND STORAGE

Handling: Use only in well-ventilated areas. Wear personal protective equipment. In case of insufficient ventilation, wear suitable respiratory equipment. Keep away from open flames, hot surfaces and sources of ignition.

Storage: Keep containers tightly closed in a cool, well-ventilated place. Store in original container. Keep away from heat and sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures: Ensure adequate ventilation, especially in confined areas.

Personal protection equipment: Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Eye protection: Tightly fitting safety goggles. Face-shield.

Hand protection: Solvent-resistant gloves.

Skin and body protection: Solvent-resistant apron and boots. Protective suit. Remove and wash contaminated clothing and gloves, including the inside, before re-use.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment. Air-purifying respirator with NIOSH classification N-95 filter or P-95 (or equivalent) if oil/liquid aerosols are present (42 CFR 84).

9. PHYSICAL AND CHEMICAL PROPERTIES

Info These data do not represent technical or sales specifications.

Form: Powder

Color: Light brown

Odor: Slightly pungent

pH: 6.5 (5% AS)

Boiling point/range: N.A.

Melting point/range: N.A.

Flash point: N.A.

Autoignition temperature: N.D.

Bulk density: 40.5 lbs/ft³ (0.65 ± 0.03 g/cc)

Explosion limits: N.D.

Vapor pressure: N.A.

Relative density/Specific Gravity: N.D.

Vapor density: N.A.

Viscosity: N.A.

Water solubility: N.D.

Solubility: N.D.

Abbreviations:

AS	- Aqueous slurry
N.D.	- Not Determined
N.A.	- Not Applicable

10. STABILITY

Stability: Stable at normal conditions. Decomposes on heating.

Hazardous decomposition products: No decomposition if used as directed.

Conditions/Materials to avoid: Keep away from ignition sources. Incompatible with hydrofluoric acid.

Acute toxicity:

LD50/oral/rat = No data available.

LD/dermal/rabbit = No data available.

LC50/inhalation/rat = No data available.

Chronic toxicity: Classification of Ingredients**EC Carcinogenic:**

Cat. 2 (Clarified oils, catalytic cracked)

EC Mutagenic:

Not listed.

Carcinogenicity (ACGIH):

Not listed.

IARC classification:

Group 3 (Scarlet red)

Group 3 (Silica amorph)

EC Toxic for Reproduction:

Not listed.

Routes of exposure: Exposure may occur via inhalation, contact with skin and eyes.

Irritation:

Skin (rabbit): No data available.

Eye (rabbit): No data available.

Additional product information:

Avoid repeated and prolonged exposure.

Additional component information:

No data available.

12. ECOLOGICAL INFORMATION

Mobility:

No data available.

Biodegradation:

No data available.

Bioaccumulation:

No data available.

Aquatic toxicity:

No data available.

Further Information:

No information available.

13. DISPOSAL CONSIDERATIONS

Provisions relating to waste: EPA - Resource Conservation and Recovery Act (RCRA) Hazardous and Solid Waste Management Regulations.

Disposal information: This product (in its fresh unused state) is not listed by generic name or trademark name in the U.S. EPA's RCRA regulations and does not possess any of the four identifying characteristics of hazardous waste (ignitability, corrosivity, reactivity or toxicity).

Dispose of in compliance with all applicable regulations. Can be incinerated, when in compliance with the local regulations. Empty remaining contents. Do not reuse empty containers.

14. TRANSPORT INFORMATION

UN-No.:

N.A.

Proper shipping name:

Not applicable.

Packing group:

N.A.

<u>Transport Mode</u>	<u>Class</u>	<u>Additional Information</u>		<u>Remarks</u>
U.S. DOT:	Not regulated.	Reportable Quantity:	N.A.	N.A.
		Marine Pollutant DOT:	No	
ADR/RID:	Not regulated.	Danger Code:	N.A.	N.A.
IMDG:	Not regulated.	Marine pollutant:	No	N.A.
		EmS:	N.A.	
IATA:	Not regulated.	Instr. Passenger:	N.A.	N.A.
		Instr. Cargo:	N.A.	

United States

Toxic Substances Control Act (TSCA): All the ingredients of this mixture are registered on the TSCA Chemical Substance Inventory.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) Reportable Quantity:

The following component(s) of this product is/are subject to release reporting under 40 CFR 302 when release exceeds the Reportable Quantity (RQ):

-- None --

SARA Title III (Superfund Amendments and Reauthorization Act of 1986):

Section 302 (Extremely Hazardous Substances):

The following component(s) of this product is/are subject to the emergency planning provisions of 40 CFR 355 when there are amounts equal to or greater than the Threshold Planning Quantity (TPQ):

-- None --

Section 313 (Toxic Chemicals):

The following component(s) have been specified as Toxic Chemicals under SARA Section 313 and may be subject to the Toxic Release Inventory (TRI) reporting requirements under 40 CFR 372:

-- None --

The following components are listed in U.S. State Regulations:

State Reg Reference:

California - Proposition 65:

State Reg Reference:

None.

Massachusetts Right-To-Know:

Silica gel

New Jersey Right-To-Know:

Silica, amorphous

Pennsylvania Right-To-Know:

Silica gel

Note: Other U.S. State Regulations may exist, check your local sources if available or contact the UOP Product Stewardship Manager (see Section 16).

Canada

Canadian Hazardous Products Act:

This product is not classified as a controlled product under regulations pursuant to the Federal Hazardous Product Act (e.g. WHMIS).

Canadian Environmental Protection Act: All the ingredients of this mixture are notified to CEPA and on the DSL (Domestic Substances List).

European Union (EU)

European Inventory of Existing Commercial Chemical Substances: All components of this product are included in EINECS/ELINCS.

Council of European Communities Directive on Classification, Packaging and Labelling of Dangerous Substances/Preparation (67/548/EEC & 1999/45/EC, as amended):

The following label information applies:

Symbol(s):	T - Toxic
Contains:	Clarified oils (petroleum), catalytic cracked
Risk Phrases:	R45 May cause cancer.
Safety phrases:	S53 Avoid exposure - obtain special instructions before use. S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Additional Governmental Inventories

Australia - Inventory of Chemical Substances (AICS): All the ingredients of this mixture appear on the AICS.

China: All the ingredients of this mixture appear on the China Inventory.

Japan - Existing and New Chemical Substances (ENCS): Clarified oils (petroleum), catalytic cracked and Dinaphtho(1,2,3-cd:3',2',1'-lm)perylene-5,10-dione, dodecyl derivs does not appear on the Japanese ENCS. All other ingredients of this mixture are registered in accordance with Japanese regulations.

Korea - Existing and Evaluated Chemical Substances (ECL): All the ingredients of this mixture appear on the ECL.

Philippines - Inventory of Chemicals and Chemical Substances (PICCS): Clarified oils (petroleum), catalytic cracked does not appear on the PICCS. All other ingredients of this mixture appear on the PICCS.

Summary of changes: New Format, Sections 2, 15
Supersedes: September 2001
Prepared by: UOP Health, Safety & Environmental Department

HMIS™ - Hazardous Material Information System:

HMIS™ Ratings: 0-minimal hazard, 1- slight hazard, 2- moderate hazard, 3- serious hazard, 4- severe hazard.

HEALTH : 1
FLAMMABILITY : 0
REACTIVITY : 0

For additional information concerning this product, contact the following:

**For health, safety and environmental information,
 please contact:**

**For technical or purchasing
 information, please contact:**

Product Stewardship Manager
 UOP LLC
 25 E. Algonquin Road
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 USA
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Product Safety Steward Europe
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Customer Order Management
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PRODUCT EMERGENCIES

If you have a product-related emergency, resulting in an incident such as a spill or release of product or human exposure and need assistance from UOP, please contact the following number :

24-Hour EMERGENCY NUMBER (UOP LLC) : + 1 - 847 - 391 - 2123

The data and recommendations presented in this data sheet concerning the use of our product and the materials contained therein are believed to be accurate and are based on information which is considered reliable as of the date hereof. However, the customer should determine the suitability of such materials for his purpose before adopting them on a commercial scale. Since the use of our products by others is beyond our control, no guarantee, express or implied, is made and no responsibility assumed for the use of this material or the results to be obtained therefrom. Information on this form is furnished for the purpose of compliance with Government Health and Safety Regulations and shall not be used for any other purposes. Moreover, the recommendations contained in this data sheet are not to be construed as a license to operate under, or a recommendation to infringe, any existing patents, nor should they be confused with state, municipal or insurance requirements, or with national safety codes.