



SAFETY DATA SHEET

Issue Date 01-Jun-2015

Revision Date 09-Jan-2018

Version 4

1. IDENTIFICATION

Product identifier

Product Name PAVOREFLECT S73 GRY

Other means of identification

Product Code PORF1500

Synonyms PORF150001, PORF150003, PORF150004, PORF150005, PORF150007, PORF150008, PORF150009, PORF150010, PORF150012, PORF150013, PORF150014, PORF150015, PORF150016, PORF150017, PORF150019, PORF150020, PORF150021, PORF150022, PORF150023, PORF150033, PORF150035, PORF150055

Recommended use of the chemical and restrictions on use

Recommended Use Textile ink. Restricted to professional users.

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

Rutland Group
10021 Rodney Street
Pineville, NC 28134
Tel: 704-553-0046

E-mail address product_safety@rutlandinc.com

Emergency telephone number

Emergency Telephone INFOTRAC 1-352-323-3500

4. FIRST AID MEASURES

Description of first aid measures

Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water.
Inhalation	Remove to fresh air.
Ingestion	Rinse mouth. Drink plenty of water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions See section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Use personal protective equipment as required. Dam up. Cover liquid spill with sand, earth or other non-combustible absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place
Store at temperatures not exceeding 35 °C/ 95 °F

Incompatible materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
TITANIUM DIOXIDE 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust (vacated) TWA: 10 mg/m ³ total dust	IDLH: 5000 mg/m ³
CALCINED KAOLIN CLAY 66402-68-4	STEL: 10 mg/m ³ Zr TWA: 5 mg/m ³ Zr TWA: 0.02 mg/m ³ Mn respirable particulate matter TWA: 0.1 mg/m ³ Mn inhalable particulate matter	TWA: 5 mg/m ³ Zr (vacated) TWA: 5 mg/m ³ Zr (vacated) STEL: 10 mg/m ³ Zr	IDLH: 25 mg/m ³ Zr TWA: 5 mg/m ³ except Zirconium tetrachloride Zr STEL: 10 mg/m ³ Zr

NIOSH IDLH *Immediately Dangerous to Life or Health*

Chemical Name	Alberta OEL	British Columbia OEL	Manitoba OEL	New Brunswick OEL
TITANIUM DIOXIDE 13463-67-7	TWA: 10 mg/m ³	TWA: 10 mg/m ³ TWA: 3 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³
CALCINED KAOLIN CLAY 66402-68-4	TWA: 5 mg/m ³ TWA: 0.2 mg/m ³ STEL: 10 mg/m ³	TWA: 5 mg/m ³ TWA: 0.2 mg/m ³ STEL: 10 mg/m ³ Adverse reproductive effect	TWA: 5 mg/m ³ TWA: 0.02 mg/m ³ TWA: 0.1 mg/m ³	-

Chemical Name	Newfoundland OEL	Northwest Territories OEL	Nova Scotia OEL	Nunavut OEL
TITANIUM DIOXIDE 13463-67-7	TWA: 10 mg/m ³	TWA: 10 mg/m ³ STEL: 20 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³ STEL: 20 mg/m ³
CALCINED KAOLIN CLAY 66402-68-4	-	-	TWA: 5 mg/m ³ TWA: 0.02 mg/m ³ TWA: 0.1 mg/m ³	-

Chemical Name	Ontario OEL	Prince Edward Island OEL	Quebec OEL	Saskatchewan OEL	Yukon OEL
TITANIUM DIOXIDE 13463-67-7	TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³ STEL: 20 mg/m ³	STEL: 20 mg/m ³ TWA: 30 mppcf TWA: 10 mg/m ³
CALCINED KAOLIN CLAY 66402-68-4	TWA: 5 mg/m ³ TWA: 0.02 mg/m ³ TWA: 0.1 mg/m ³ STEL: 10 mg/m ³	TWA: 5 mg/m ³ TWA: 0.02 mg/m ³ TWA: 0.1 mg/m ³	TWA: 5 mg/m ³ STEL: 10 mg/m ³	-	TWA: 5 mg/m ³

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

- Eye/face protection** Wear safety glasses with side shields (or goggles).
- Skin and body protection** Wear protective gloves and protective clothing.
- Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid	Odor	Slight
Appearance	viscous	Odor threshold	No information available
Color	colored		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	7	
Melting point/freezing point	No information available	
Boiling point / boiling range	100 °C / 212 °F	
Flash point	100 °C / 212 °F	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	1.25	
Water solubility	Soluble in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information No data available

Inhalation No data available.

Eye contact No data available.

Skin contact No data available.

Ingestion No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
TITANIUM DIOXIDE 13463-67-7	> 10000 mg/kg (Rat)	-	-
DIETHYLENE GLYCOL 111-46-6	= 12565 mg/kg (Rat)	= 11890 mg/kg (Rabbit)	-

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
TITANIUM DIOXIDE 13463-67-7	-	Group 2B	-	X

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Target Organ Effects Lungs, Respiratory system, Skin.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 7534 mg/kg
ATEmix (dermal) No information available
ATEmix (inhalation-gas) No information available
ATEmix (inhalation-dust/mist) No information available
ATEmix (inhalation-vapor) No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

19.6 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container.

US EPA Waste Number

U122

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
FORMALDEHYDE 50-00-0	U122	Included in waste streams: K009, K010, K038, K040, K156, K157	-	U122

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
CALCINED KAOLIN CLAY 66402-68-4	Toxic

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

MEX Not regulated

ICAO (air) Not regulated

IATA Not regulated

IMDG Not regulated

RID Not regulated

ADR Not regulated

ADN Not regulated

15. REGULATORY INFORMATION

International Inventories **On Inventory (Yes/No)**

TSCA	Yes
DSL/NDSL	Yes
EINECS/ELINCS	Yes
ENCS	Yes
IECSC	Yes
KECL	Yes
PICCS	Yes
AICS	Yes

Legend:

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS** - Japan Existing and New Chemical Substances
- IECSC** - China Inventory of Existing Chemical Substances
- KECL** - Korean Existing and Evaluated Chemical Substances
- PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- AICS** - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
CALCINED KAOLIN CLAY - 66402-68-4	1.0

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
CALCINED KAOLIN CLAY 66402-68-4	-	X	-	-

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	California Proposition 65
CARBON BLACK - 1333-86-4	Carcinogen
FORMALDEHYDE - 50-00-0	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
CALCINED KAOLIN CLAY	X	-	X

66402-68-4			
CARBON BLACK 1333-86-4	X	X	X
FORMALDEHYDE 50-00-0	X	X	X
AMMONIUM HYDROXIDE 1336-21-6	X	X	X
3,5,7-TRIAZA-1-AZONIATRICYCL O[3.3.1.13,7]DECANE,1- 4080-31-3	X	-	-

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA Health hazards 1 Flammability 1 Instability 0 Physical and Chemical Properties -
HMIS Health hazards 1 Flammability 1 Physical hazards 0 Personal protection B

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 Revision Note
 SDS sections updated 4 7 16

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet