SAFETY DATA SHEET



Date of issue/Date of revision 29 April 2016

Version 5

Section 1. Identification

Product name : DFS SC OXFRD BRN FLT LTX

Product code : 53210A
Other means of : Not available.

identification Product type

: Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.

Use of the substance/

mixture

: Coating. Paints. Painting-related materials.

Uses advised against : Not applicable.

Manufacturer : PPG Industries, Inc.

One PPG Place Pittsburgh, PA 15272

Emergency telephone

number

: (412) 434-4515 (U.S.) (514) 645-1320 (Canada) 01-800-00-21-400 (Mexico)

Technical Phone Number : 1-800-441-9695 (8:00 am to 5:00 pm EST)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard

(29 CFR 1910.1200).

Classification of the substance or mixture

: CARCINOGENICITY - Category 1A

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 33.4%

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements: May cause cancer.

Precautionary statements

United States Page: 1/12

Product name DFS SC OXFRD BRN FLT LTX

Section 2. Hazards identification

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have

been read and understood. Wear protective gloves. Wear eye or face protection.

Wear protective clothing.

Response : IF exposed or concerned: Get medical attention.

> Photosensitive agents: In case of accidental eve contact, avoid concurrent exposure to the sun or other sources of UV light which may increase the sensitivity of the eyes. In case of accidental skin contact, avoid concurrent exposure to the sun or other sources

of UV light which may increase the sensitivity of skin.

: Store locked up. **Storage**

Disposal : Dispose of contents and container in accordance with all local, regional, national and

international regulations.

Supplemental label

: Sanding and grinding dusts may be harmful if inhaled. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the elements

duration and level of exposure to dust from sanding surfaces or mist from spray

applications. Emits toxic fumes when heated.

Hazards not otherwise

classified

: None known.

Section 3. Composition/information on ingredients

Substance/mixture Mixture

: DFS SC OXFRD BRN FLT LTX **Product name**

Ingredient name	%	CAS number
√alc , not containing asbestiform fibres	≥5.0 - ≤10	14807-96-6
	≤1.0	1333-86-4
cristobalite (<10 microns)	<1.0	14464-46-1

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids

apart for at least 10 minutes and seek immediate medical advice.

In case of accidental eye contact, avoid concurrent exposure to the sun or other

sources of UV light which may increase the sensitivity of the eyes.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is

irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained

personnel.

United States Page: 2/12

Product name DFS SC OXFRD BRN FLT LTX

Section 4. First aid measures

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water

or use recognized skin cleanser. Do NOT use solvents or thinners.

In case of accidental skin contact, avoid concurrent exposure to the sun or other

sources of UV light which may increase the sensitivity of skin.

Ingestion : If swallowed, seek medical advice immediately and show this container or label. Keep

person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact
 Inhalation
 No known significant effects or critical hazards.
 Skin contact
 No known significant effects or critical hazards.
 Ingestion
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: No specific data.Inhalation: No specific data.Skin contact: No specific data.Ingestion: No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is

suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water

before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing

media

: None known.

Specific hazards arising from the chemical

: In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products

: Decomposition products may include the following materials:

carbon dioxide carbon monoxide metal oxide/oxides

United States Page: 3/12

Product name DFS SC OXFRD BRN FLT LTX

Section 5. Fire-fighting measures

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

United States Page: 4/12

Date of issue 29 April 2016 Version 5

Product name DFS SC OXFRD BRN FLT LTX

Section 7. Handling and storage

Protective measures

Product code 53210A

: Put on appropriate personal protective equipment (see Section 8). Avoid exposure obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Special precautions

: If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

including any incompatibilities

Conditions for safe storage, : Do not store below the following temperature: 5°C (41°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
▼alc , not containing asbestiform fibres	ACGIH TLV (United States, 3/2015).
	TWA: 2 mg/m³ 8 hours. Form: Respirable
	OSHA PEL Z3 (United States, 2/2013).
	TWA: 20 mppcf 8 hours. Form: not
	containing asbestos
carbon black, respirable powder	ACGIH TLV (United States, 3/2015).
	TWA: 3 mg/m³ 8 hours. Form: Inhalable
	fraction
	OSHA PEL (United States, 2/2013).
	TWA: 3.5 mg/m ³ 8 hours.
cristobalite (<10 microns)	OSHA PEL Z3 (United States, 2/2013).
	TWA: 250 MPPCF / 2 x (%SiO2+5) 8 hours.
	Form: Respirable
	TWA: 10 MG/M3 / 2 x (%SiO2+2) 8 hours.
	Form: Respirable
	TWA: 30 MG/M3 / 2 x (%SiO2+2) 8 hours.
	Form: Total dust
	ACGIH TLV (United States, 3/2015).
	TWA: 0.025 mg/m³ 8 hours. Form:
	Respirable fraction
	1 Copilable Haction

United States Page: 5/12

Product name DFS SC OXFRD BRN FLT LTX

Section 8. Exposure controls/personal protection

Key to abbreviations

= Acceptable Maximum Peak S = Potential skin absorption ACGIH = American Conference of Governmental Industrial Hygienists. SR = Respiratory sensitization С = Ceiling Limit SS = Skin sensitization

F = Fume STEL = Short term Exposure limit values **IPEL** = Internal Permissible Exposure Limit = Total dust TD

OSHA = Occupational Safety and Health Administration. TLV = Threshold Limit Value = Respirable = Time Weighted Average R TWA

Ζ = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances

Consult local authorities for acceptable exposure limits.

procedures

Recommended monitoring: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that evewash stations and safety showers are close to the workstation location.

Eye/face protection Skin protection

: Safety glasses with side shields.

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves

: polyethylene

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

> **United States** Page: 6/12

Product name DFS SC OXFRD BRN FLT LTX

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.
Odor : Not available.
Odor threshold : Not available.
pH : Not available.
Melting point : Not available.

Boiling point : >37.78°C (>100°F)

Flash point : Closed cup: 93.33°C (200°F)

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive : Not available.

(flammable) limits

Evaporation rate : 0.34 (butyl acetate = 1)

Vapor pressure : 2.3 kPa (17.4 mm Hg) [room temperature]

Vapor density : Not available.

Relative density : 1.19
Density (lbs / gal) : 9.93

Solubility : Insoluble in the following materials: cold water.

Partition coefficient: n-

octanol/water

: Not available.

Viscosity : Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)

Volatility : 70% (v/v), 58.98% (w/w)

% Solid. (w/w) : 41.02

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products.

Refer to protective measures listed in sections 7 and 8.

Incompatible materials: Keep away from the following materials to prevent strong exothermic reactions:

oxidizing agents, strong alkalis, strong acids.

Hazardous decomposition

products

: Decomposition products may include the following materials: carbon monoxide, carbon

dioxide, smoke, oxides of nitrogen.

United States Page: 7/12

Product name DFS SC OXFRD BRN FLT LTX

Section 11. Toxicological information

<u>Information on toxicological effects</u>

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
carbon black, respirable powder	LD50 Dermal	Rabbit	>3 g/kg	-
powdor	LD50 Oral	Rat	>15400 mg/kg	-

Conclusion/Summary :

: There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin: There are no data available on the mixture itself.Eyes: There are no data available on the mixture itself.Respiratory: There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin: There are no data available on the mixture itself.Respiratory: There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary: There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary: There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
øarbon black, respirable powder	-	2B	-
cristobalite (<10 microns)	-	1	Known to be a human carcinogen.

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA:

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary: There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary: There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category
Talc , not containing asbestiform fibres	Category 3

Specific target organ toxicity (repeated exposure)

Name	Category
cristobalite (<10 microns)	Category 1

United States Page: 8/12

Product name DFS SC OXFRD BRN FLT LTX

Section 11. Toxicological information

: Contains material which may cause damage to the following organs: lungs, liver, **Target organs**

cardiovascular system, upper respiratory tract, skin, eyes, central nervous system

(CNS).

Aspiration hazard

Not available.

Information on the likely routes of exposure

Potential acute health effects

Eye contact : No known significant effects or critical hazards. : No known significant effects or critical hazards. Inhalation **Skin contact** : No known significant effects or critical hazards. Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

: No specific data. **Eye contact** Inhalation : No specific data. **Skin contact** : No specific data. Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary

: There are no data available on the mixture itself. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. Acrylate components of the mixture have irritating properties. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc. May cause allergic skin reactions with repeated exposure. The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. Ingestion may cause nausea, weakness and central nervous system effects. If splashed in the eyes, the liquid may cause irritation and reversible damage. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate : There are no data available on the mixture itself.

effects

: There are no data available on the mixture itself. Potential delayed effects

Long term exposure

: There are no data available on the mixture itself. Potential immediate

effects

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : No known significant effects or critical hazards.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity No known significant effects or critical hazards. **Teratogenicity** : No known significant effects or critical hazards. **Developmental effects** : No known significant effects or critical hazards. **Fertility effects** : No known significant effects or critical hazards.

United States Page: 9/12 Product code 53210A

Date of issue 29 April 2016

Version 5

Product name DFS SC OXFRD BRN FLT LTX

Section 11. Toxicological information

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{oc})

: Not available.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

United States Page: 10/12

Product name DFS SC OXFRD BRN FLT LTX

14. Transport information

	DOT	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class (es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

DOT : None identified.

IMDG : None identified.

IATA : None identified.

Special precautions for user : Transport within user's premises: always transport in closed containers that are

upright and secure. Ensure that persons transporting the product know what to do in

the event of an accident or spillage.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b): All components are listed or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : Delayed (chronic) health hazard

Composition/information on ingredients

Name	hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Talc , not containing asbestiform fibres carbon black, respirable powder cristobalite (<10 microns)	No.	No.	No.	Yes.	No.
	Yes.	No.	No.	No.	Yes.
	No.	No.	No.	No.	Yes.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

United States Page: 11/12

Product name DFS SC OXFRD BRN FLT LTX

Section 15. Regulatory information

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health: 2 * Flammability: 1 Physical hazards: 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Health: 2 Flammability: 1 Instability: 0

Date of previous issue : 8/24/2015

Organization that prepared

the MSDS

Key to abbreviations : ATE = Acute Toxicity Estimate

: FHS

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973

as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

▼ Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

United States Page: 12/12