

SAFETY DATA SHEET

Issuing Date: 05-Sep-2014

Version 2

Stable Medium Flake

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Stable Medium Flake

Product code PFS31509

Product Use Chemical additive.

Manufactured by

FUJIFILM Manufacturing U.S.A., Inc.
20 West 14th Avenue
North Kansas City, MO. 64116 USA
Phone#: (913) 342-4060

Distributed in Canada by

FUJIFILM Canada, Inc.
600 Suffolk Ct.
Mississauga, Ontario L5R 4G4

MSDS are available at the following website(s): <http://www.fujifilmusa.com/msds>
<http://www.fujifilm.ca/msds/search.do>

Company Phone Number U.S.A: 800-473-3854 Canada: 800-263-5018

Emergency Telephone Transport-CHEMTREC Inside NA: 800-424-9300
Transport CHEMTREC Outside NA: 703-527-3887
Transport-CANUTEC Inside Canada: 613-996-6666
Medical Emergency (24 hour): 877-935-7387

E-mail EHS@fujifilm.com

2. HAZARDS IDENTIFICATION

Classification

Flammable Solids	Category 1
Substances or mixtures which, in contact with water, emit flammable gases	Category 2

GHS Label elements, including precautionary statements

Flammable Solids
In contact with water releases flammable gases



Precautionary Statements

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 Ground/Bond container and receiving equipment
 Use explosion-proof electrical/ventilating/lighting/equipment
 Wear protective gloves/protective clothing/eye protection/face protection
 Keep away from any possible contact with water, because of violent reaction and possible flash fire
 Handle under inert gas. Protect from moisture

Response

Not applicable
 Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages
 In case of fire: Use CO₂, dry chemical, or foam for extinction

Storage

Store in a dry place. Store in a closed container

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not classified

Unknown Acute Toxicity

10% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Aluminum flake	7429-90-5	80-100%

4. FIRST AID MEASURES

First aid measures for different exposure routes

General advice	Do not breathe dust.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
Skin contact	Wash skin with soap and water.
Inhalation	Move to fresh air. If symptoms persist, call a physician.

Ingestion Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth. If symptoms persist, call a physician.

Most important symptoms/effects, acute and delayed

None known.

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

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

CO₂, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable Extinguishing Media

Water. Do not use halogenated extinguishing agents or foam.

Specific hazards arising from the chemical

Violent reaction with water; contact may cause an explosion or may product a flammable gas.

Hazardous Combustion Products

Aluminum oxide fumes.

Explosion Data

Sensitivity to Mechanical Impact none

Sensitivity to Static Discharge none

Minimum Explosive Concentration 40 mg/L

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

Avoid dust formation. Avoid contact with the skin and the eyes. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Environmental precautions

Do not flush into surface water or sanitary sewer system.

Methods and materials for containment and cleaning up

Methods for Containment Prevent dust cloud.

Methods for cleaning up Use personal protective equipment. Avoid dust formation. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly.

Other information DO NOT GET WATER on spilled substance or inside containers. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

7. HANDLING AND STORAGE

Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin and eyes. Keep away from open flames, hot surfaces and sources of ignition. Avoid dust formation. Avoid contact with eyes.

Conditions for safe storage, including any incompatibilities

Keep out of the reach of children. Keep tightly closed in a dry and cool place. Keep away from open flames, hot surfaces and sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	AIHA - Workplace Environmental Exposure Levels (WEELs) - TWAs
Aluminum flake	TWA: 1 mg/m ³ respirable fraction	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 5 mg/m ³ Al Aluminum	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust TWA: 5 mg/m ³ Al	

Exposure controls

Engineering Measures Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses with side-shields.

Skin and body protection Wear protective gloves/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 When using do not eat, drink or smoke. Take off contaminated clothing and wash before reuse. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	silver	Odor	Odorless
Odor Threshold	Not available	Physical State @20°C	powder
pH	Not available	Molecular Weight	Not available
Specific Gravity	2.60	Autoignition temperature	400 °C / 752 °F
Flash point	Not applicable	Boiling point / boiling range	4532 °F / 2500 °C
Decomposition temperature	Not available	Freezing Point	Not available
Melting point / melting range	Not available		
Flammability Limit in Air	Not available		
Oxidizing Properties	Not available	Explosive Property Details	Not available
Solubility	Not available	Partition coefficient	Not available

Evaporation rate	Not available	Vapor Pressure	Not applicable
Vapor density	Not available	Density	Not available
Weight per Gallon (lbs)	21.63	Actual VOC (lb/gal)	0
VOC (lb/gal)	Not available	VOC (g/l)	Not available
Dynamic viscosity	Not available		

VOC Content of Material 0 grams per liter
VOC Content of Coating less Water and Exempt Solvents 0 grams per liter

10. STABILITY AND REACTIVITY

Reactivity

Stable under recommended storage conditions

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization does not occur.

Conditions to Avoid

Dust formation. Keep away from open flames, hot surfaces and sources of ignition. Protect from water.

Incompatible Materials

Strong oxidizing agents. Water. Strong acids. Strong bases. Halogenated compounds.

Hazardous Decomposition Products

Fumes of aluminum or aluminum oxide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Acute toxicity

Inhalation

Inhalation of dust in high concentration may cause irritation of respiratory system. May be harmful if inhaled.

Eyes

Dust contact with the eyes can lead to mechanical irritation.

Skin

Substance may cause slight skin irritation.

Ingestion

No known hazard by swallowing.

Component Information

No information available

Information on toxicological effects

No information available.

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

Irritation

Non-irritating during normal use.

Corrosivity

No information available.

Sensitization

No information available.

Mutagenic Effects	No information available.
Reproductive Toxicity	No information available.
Carcinogenicity	None known.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Chronic toxicity	No known effect.
Target Organ Effects	Eyes, 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 (inhalation-vapor) 55.6 mg/l

ATE: Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity

Contains no substances known to be hazardous to the environment or that are not degradable in wastewater treatment plants

Persistence and degradability

No information available.

Bioaccumulation

No information available

Mobility

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

Dispose of in accordance with all applicable national environmental laws and regulations. Dispose of in accordance with federal, state, and local regulations.

Contaminated packaging

Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name	Aluminum powder, coated
UN/ID No	UN1309
Hazard Class	4.1
Packing Group	II
Description	Aluminum powder, coated
Emergency Response Guide Number	170
Packaging Exceptions	151
Non-bulk Packaging	212
Bulk Packaging	240

TDG

Proper Shipping Name	Aluminum powder, coated
UN/ID No	UN1309
Hazard Class	4.1
Packing Group	II
Description	UN1309, Aluminum powder, coated, 4.1, PGII

MEX

Proper Shipping Name	UN1309, Aluminum powder, coated, 4.1, PGII
UN/ID No	UN1309
Hazard Class	4.1
Packing Group	II
Description	UN1309, Aluminum powder, coated, 4.1, II

ICAO

Proper Shipping Name	Aluminium powder, coated
UN/ID No	UN1309
Hazard Class	4.1
Packing Group	II
Description	UN1309, Aluminum powder, coated, 4.1, II

IATA

Proper Shipping Name	Aluminium powder, coated
UN/ID No	UN1309
Hazard Class	4.1
Packing Group	II
Description	UN1309, Aluminum powder, coated, 4.1, II

IMDG

Proper Shipping Name	Aluminum powder, coated
UN/ID No	UN1309
Hazard Class	4.1
Packing Group	II
EmS-No	F-G, S-G
Description	Aluminum powder, coated

ADR/RID

Proper Shipping Name	Aluminum powder, coated
UN/ID No	UN1309
Hazard Class	4.1
Packing Group	II
Classification Code	F3

Description	Aluminum powder, coated
ADR/RID-Labels	4.1

ADN

Proper Shipping Name	UN1309, Aluminum powder, coated, 4.1, PGII
UN/ID No	UN1309
Hazard Class	4.1
Packing Group	II
Classification Code	F3
Description	UN1309, Aluminum powder, coated, 4.1, II
Limited quantity	LQ8

15. REGULATORY INFORMATION**International Inventories**

TSCA	Yes
DSL/NDSL	Yes
PICCS	Yes
EINECS/ELINCS	Yes
ENCS	No
IECSC	Yes
KECL	Yes
AICS	Yes

*Yes - All component(s) of this product are included or are exempt from listing on the inventory.

*No - Indicates the component(s) of this product are either not listed or have not been determined to be listed on the inventory.

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

U.S. Federal Regulations**TSCA Sections 4, 5 and 12(b)**

This product does not contain any chemicals regulated by TSCA Sections 4, 5 or 12(b).

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	CAS No	SARA 313 - Threshold Values %	Weight-%
Aluminum flake	7429-90-5	1.0	80-100%

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	no
Fire Hazard	Yes
Sudden Release of Pressure Hazard	no
Reactive Hazard	Yes

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Aluminum flake	X	X	X		X

International Regulations

Canada - NDSL

This product does not contain any NDSL chemicals.

Mexico - Grade

No information available

Mexico - Carcinogen Status and Exposure Limits

Chemical Name	Carcinogen Status	Exposure Limits
Aluminum flake		Mexico: TWA 10 mg/m ³ Mexico: TWA 5 mg/m ³

Other Regulations

No information available

CPSIA	Formulated to comply
CONEG	Formulated to comply
ASTM F-963	Formulated to comply
CHPA	Formulated to comply
ROHS	Formulated to comply
REACH/SVHC	Formulated to comply
EN-71	Formulated to comply

16. OTHER INFORMATION

NFPA	Health Hazard 1	Flammability 2	Instability 2	Physical and chemical hazards W Personal protection B
HMIS	Health Hazard 1	Flammability 2	Physical Hazard 2	

Prepared By FUJIFILM Environment, Health and Safety, phone: 800-473-3854

Revision Date 05-Sep-2014

**Revision Note
Disclaimer**

No information available

The information provided in this 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.

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