



Safire® 400

Prepared in accordance with GB/T 16483-2008, GB/T 24774-2009, GB 13690 – 2009, GB/T 17519–2013
GHS (Globally Harmonized System)

Issue Date 14/May/2025

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Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Safire® 400
Chemical Name	Melamine poly(zinc phosphate)
Pure substance/mixture	Substance
<u>Melamine poly(zinc phosphate)</u>	
Weight-%	95.0 -100.0
CAS Number	1271172-98-5
Recommended Use	Smoke suppressant Flame retardant No consumer use allowed.
Uses advised against	None known
Company:	J.M. Huber Corporation 3100 Cumberland Boulevard, Suite 600 Atlanta, GA 30339 USA Tel: +1 678 247-7300
Emergency Telephone	CHEMTREC: 1 800 424 9300 or International +1 703 527 3887
E-mail	www.huberadvancedmaterials.com/contact
Internet	www.huberadvancedmaterials.com

Section 2: HAZARDS IDENTIFICATION

GHS Classification

Physical Hazard	Not classified.
Health Hazard	Not classified.
Environmental Hazard	Hazardous to the aquatic environment - Chronic, category 2

Label Elements

Symbols/Pictograms

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None

Hazard Statement

H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements**Prevention**

P273 - Avoid release to the environment

Response

P391 - Collect spillage

Spills and Leaks

Collect spillage

StorageStore in a dry place
Store away from incompatible materials.**Disposal**Dispose of contents/container in accordance with
local/regional/national/international regulations.**General Advice**Ensure that medical personnel are aware of the material(s) involved and take
precautions to protect themselves**Additional Information:**According to the U.S. Environmental Protection Agency this substance presents a
concern for hazard to the aquatic environment and reproductive toxicity.**Other**According to the U.S. Environmental Protection Agency this substance presents a
concern for hazard to the aquatic environment and reproductive toxicity.

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Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture

Substance

Chemical Name	CAS NUMBER:	China (IECSC)	China classification	TSCA: United States	EU REACH registration number	Weight-%
Melamine poly(zinc phosphate)	1271172-98-5	C1B222250023	Chronic Aquatic Toxicity, Category 2	PMN P-16-0484	01-2120116104-75-xxxx 04-2120862008-56-0000 (PPORD)	95.0 -100.0

Additional Information:

> 10 MT/year registration in China, Must be imported by Huber.

Section 4: FIRST AID MEASURES

General Advice

Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves

Eye Contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and hold eyelids apart and flush with a steady, gentle stream of water. Continue flushing for at least 15 minutes.

Skin Contact

IF ON SKIN: Wash with plenty of soap and water
Remove contaminated clothing and shoes

Inhalation

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing

Ingestion

If swallowed, rinse mouth with water (only if the person is conscious)
Drink plenty of water.

Notes to Physician

Treat symptomatically

Personal Protective Equipment
For First Aid RespondersWear suitable protective clothing
IF exposed or concerned: Get medical advice/attentionExpected acute symptoms and
delayed symptoms

May cause skin, eye, and respiratory tract irritation

Section 5: FIRE FIGHTING MEASURES

Flammable Properties

None known

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

Unsuitable extinguishing media: None known

Specific Hazards Arising from the Chemical None known

Unusual fire & explosion hazards: None

Protective measures: Use protective equipment that is appropriate for surrounding materials.

Protective Equipment and Precautions for Firefighters Wear self-contained breathing apparatus and protective suit

Section 6: SPILLAGE, ACCIDENTAL RELEASE MEASURES

Personal Precautions Avoid dust formation. When exposed to high concentrations of airborne dust, wear a SCBA in accordance with national legislation

Environmental Precautions Do not flush into surface water or sanitary sewer system.

Methods for cleaning up Large Spill: Do not dry sweep dust. Wet dust with water before sweeping or use a vacuum to collect dust Small Spill: Vacuum or sweep material and place in a disposal container

Other Information: Personal protection equipment (PPE) Refer to Section 8
Disposal - Refer to Section 13

Section 7: HANDLING AND STORAGE

Handling Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment. Handle in accordance with good industrial hygiene and safety practice.

Storage Store in tightly closed original container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the MSDS).

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits Provide adequate ventilation as well as local exhaustion at critical locations

Engineering Measures Ensure adequate ventilation, especially in confined areas
Provide a good standard of controlled ventilation (10 to 15 air changes per hour)

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Personal Protective Equipment

Eye/Face Protection

Wear safety glasses with side shields (or goggles)

Skin and Body Protection

Wear suitable protective clothing

Hand Protection

Impervious gloves

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice Handle in accordance with good industrial hygiene and safety practice

Environmental Exposure Controls

Dispose of in accordance with local regulations
Do not empty into drains or water courses

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance:

Physical State

Solid

Powder

Color

White to light yellow

Odor

None

Odor Threshold

No information available

pH:

5.0 - 5.5 , < / =0.3% suspension - Water

Melting point / Freezing point

> 650 °C

Initial boiling point and boiling range

Not applicable Solid

Flash Point

Not applicable. Solid.

Evaporation Rate

Not applicable Solid

Flammability (solid, gas)

Not readily flammable ----- Solid - (EU A10)

Upper flammability limit:

Lower flammability limit:

Vapor Pressure

No data available

Vapor Density

Not applicable Solid

Bulk Density

0.51 +/- 0.3 g/ml

Relative Density

2.4 +/- 0.3 g/cm³ (20 °C)

Water Solubility

0.1 to 100 mg/L Slightly soluble

Solubility in other solvents

No data available

Partition coefficient

(25 °C)

Autoignition Temperature

> 1000 °C

Decomposition Temperature

>325 °C

Viscosity

Not applicable. Solid.

Explosive Properties

Not Explosible based on 1 m3 Chamber, ASTM E1226

Oxidizing Properties

Not oxidizing

Particle Size

D50 = 2.5 – 4.0 microns (80% below 10 microns)

VOC Content (%)

Not applicable

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Section 10: STABILITY AND REACTIVITY

Stability	Stable under normal conditions
Conditions to avoid:	Incompatible materials Strong oxidizers.
Incompatible materials	Strong acids
Hazardous decomposition products	None under normal processing
Hazardous Reactions	None under normal processing
Hazardous polymerization:	None under normal processing

Section 11: TOXICOLOGICAL INFORMATION

General Information Users are advised to consider national Occupational Exposure Limits or other equivalent values.

Product Information

Information on Likely Routes of Exposure

Eyes	Avoid contact with eyes Dust contact with the eyes can lead to mechanical irritation
Skin	Avoid prolonged or repeated contact with skin
Inhalation	Avoid inhalation of the product
Ingestion	Ingestion is not a likely route of exposure
Aspiration hazard	Not applicable. Solid.

11.1. Information on toxicological effects

Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.
Respiratory Sensitization	Based on available data, the classification criteria are not met.
Skin Corrosion/Irritation	Based on available data, the classification criteria are not met.

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Skin Sensitization	Based on available data, the classification criteria are not met.
Mutagenicity	Based on available data, the classification criteria are not met.
Reproductive Toxicity	According to the U.S. Environmental Protection Agency this substance presents a concern for hazard to the aquatic environment and reproductive toxicity.
Carcinogenicity	Based on available data, the classification criteria are not met.
Other	According to the U.S. Environmental Protection Agency this substance presents a concern for hazard to the aquatic environment and reproductive toxicity.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity	Toxic to aquatic life with long lasting effects.
Persistence/Degradability:	Not readily biodegradable. (OECD 301 B).
Bioaccumulative Potential	
Partition coefficient	Not available
Bioconcentration factor (BCF)	No data available.
Mobility in soil	None.
Results of PBT and vPvB assessment	This substance does not meet the criteria for classification as PBT or vPvB.
Other Adverse Effects	None known

Section 13: DISPOSAL CONSIDERATIONS

Waste from Residues/Unused Products	Dispose of in accordance with local regulations
Contaminated Packaging:	Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14: TRANSPORT INFORMATION

Mode of Transportation (Road, Water, Air, Rail)

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DOT	Not regulated in non-bulk packages (<119 gal) UN3077, Environmentally hazardous substance, solid, n.o.s. (Melaminepoly(zinc phosphate)), 9, PG III, Marine Pollutant
ADR	UN3077, Environmentally hazardous substance, solid, n.o.s. (Melaminepoly(zinc phosphate)), 9, PG III, Marine Pollutant
IATA	UN3077, Environmentally hazardous substance, solid, n.o.s. (Melaminepoly(zinc phosphate)), 9, PG III, Marine Pollutant
IMDG/IMO	UN3077, Environmentally hazardous substance, solid, n.o.s. (Melaminepoly(zinc phosphate)), 9, PG III, Marine Pollutant
ICAO	UN3077, Environmentally hazardous substance, solid, n.o.s. (Melaminepoly(zinc phosphate)), 9, PG III, Marine Pollutant

14.1. UN number UN3077**14.2. UN proper shipping name** Environmentally hazardous substance, solid, n.o.s. (Melaminepoly(zinc phosphate))**14.3. Transport hazard class(es)** 9**14.4. Packing group** III**14.5. Environmental hazards** Toxic to aquatic life with long lasting effects**14.6. Special precautions for user** Do not handle until all safety precautions have been read and understood.**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code****Marine Pollutant**

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Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Global Inventories

Chemical Name	CAS NUMBER:	EC No	EU REACH registrati on number	Australia (AIIIC)	Canada (DSL)	China (IECSC)	Japan	S. Korea (KECL)	Mexico	New Zealand	Philippine s (PICCS)	Taiwan	TSCA: United States
Melamine poly(zinc phosphate)	1271172-9 8-5	690-512-6	01-212011 6104-75-x xxx 04-212086 2008-56-0 000 (PPORD)	N	N	C1B22225 0023	N	N	N	N	N	N	PMN P-16-0484

X / Y: Complies ; A: Active ; - / N: Exempt / Not Listed

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Section 16: OTHER INFORMATION

Prepared by Huber Engineered Materials Global Regulatory Affairs
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Reason for Revision GB/T 16483-2008
GB/T 24774-2009
GB 13690 – 2009
GB/T 17519–2013

GHS Classification

Physical Hazard Not classified.

Health Hazard Not classified.

Environmental Hazard Hazardous to the aquatic environment - Chronic, category 2

Label Elements

Symbols/Pictograms



Signal Word None

Hazard Statement H411 - Toxic to aquatic life with long lasting effects

Abbreviations and acronyms

IARC (International Agency for Research on Cancer)
IATA (International Air Transport Association)
IMDG (International Maritime Dangerous Goods)
IUCLID (International Uniform Chemical Information Database)
WHMIS (Workplace Hazardous Materials Information System)
DOT (Department of Transportation)
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
TWA (Time-Weighted Average)
CLP (The Classification, Labeling and Packaging of Substances and Mixtures Regulation (EC 1272/2008))
PPE (Personal Protection Equipment)
NIOSH (National Institute for Occupational Safety and Health)
TDG (Transport of Dangerous Goods) Canada
CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)
RQ (Reportable Quantity) (RQ/% in mixture)
STEL (Short Term Exposure Limit)
TLV® (Threshold Limit Value)
DNEL (Derived No Effect Level)

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SVHC (Substances of Very High Concern)
BOD (Biochemical oxygen demand)
COD (Chemical oxygen demand)
ICAO (International Civil Aviation Organization)
IMDG (International Maritime Dangerous Goods)
SCBA (Self-Contained Breathing Apparatus) Positive Pressure
GHS (Globally Harmonized System)
ADR (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
RID (Agreement Concerning the International Carriage of Dangerous Goods by Rail)
SARA (Superfund Amendments and Reauthorization Act of 1986)
TSCA (Toxic Substances Control Act)

Disclaimer 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

End of Safety Data Sheet