



**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)

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**Section 1: PRODUCT AND COMPANY IDENTIFICATION**

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

**Section 2: HAZARDS IDENTIFICATION**

**GHS Classification**

<b>Physical Hazard</b>	Not classified
<b>Health Hazard</b>	Not classified
<b>Environmental Hazard</b>	Hazardous to the aquatic environment - Chronic, category 2

**Label Elements**

**Symbols/Pictograms**

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**Signal Word** 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

**Storage** Store 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.

## 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	新常登C-21104	Hazardous to the aquatic environment - Chronic, category 1	PMN P-16-0484	01-2120116104-75 -xxxx  04-2120862008-56 -0000 (PPORD)	95.0 -100.0

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## Section 4: FIRST AID MEASURES

<b>General Advice</b>	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves
<b>Eye Contact</b>	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.
<b>Skin Contact</b>	IF ON SKIN: Wash with plenty of soap and water Remove contaminated clothing and shoes
<b>Inhalation</b>	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
<b>Ingestion</b>	If swallowed, rinse mouth with water (only if the person is conscious) Drink plenty of water.
<b>Notes to Physician</b>	Treat symptomatically
<b>Personal Protective Equipment For First Aid Responders</b>	Wear suitable protective clothing IF exposed or concerned: Get medical advice/attention
<b>Expected acute symptoms and delayed symptoms</b>	May cause skin, eye, and respiratory tract irritation

## Section 5: FIRE FIGHTING MEASURES

<b>Flammable Properties</b>	None known
<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable extinguishing media:</b>	None known
<b>Specific Hazards Arising from the Chemical</b>	None known
<b>Unusual fire &amp; explosion hazards:</b>	None
<b>Protective measures:</b>	Use protective equipment that is appropriate for surrounding materials.
<b>Protective Equipment and Precautions for Firefighters</b>	Wear self-contained breathing apparatus and protective suit

## Section 6: SPILLAGE, ACCIDENTAL RELEASE MEASURES

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<b>Personal Precautions</b>	Avoid dust formation. When exposed to high concentrations of airborne dust, wear a SCBA in accordance with national legislation
<b>Environmental Precautions</b>	Do not flush into surface water or sanitary sewer system.
<b>Methods for cleaning up</b>	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
<b>Other Information:</b>	Personal protection equipment (PPE) Refer to Section 8 Disposal - Refer to Section 13

## Section 7: HANDLING AND STORAGE

<b>Handling</b>	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.
<b>Storage</b>	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

<b>Exposure Limits</b>	Provide adequate ventilation as well as local exhaust at critical locations
<b>Engineering Measures</b>	Ensure adequate ventilation, especially in confined areas Provide a good standard of controlled ventilation (10 to 15 air changes per hour)
<b>Personal Protective Equipment</b>	
<b>Eye/Face Protection</b>	Wear safety glasses with side shields (or goggles)
<b>Skin and Body Protection</b>	Wear suitable protective clothing
<b>Hand Protection</b>	Impervious gloves
<b>Respiratory Protection</b>	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice Handle in accordance with good industrial hygiene and safety practice
<b>Environmental Exposure Controls</b>	Dispose of in accordance with local regulations Do not empty into drains or water courses

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

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### 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/cm <sup>3</sup> (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

## 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

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## 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

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

#### 11.1. Information on toxicological effects

<b>Serious eye damage/eye irritation</b>	Based on available data, the classification criteria are not met
<b>Respiratory Sensitization</b>	Based on available data, the classification criteria are not met
<b>Skin Corrosion/Irritation</b>	Based on available data, the classification criteria are not met
<b>Skin Sensitization</b>	Based on available data, the classification criteria are not met
<b>Mutagenicity</b>	Based on available data, the classification criteria are not met.
<b>Reproductive Toxicity</b>	According to the U.S. Environmental Protection Agency this substance presents a concern for hazard to the aquatic environment and reproductive toxicity.
<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.
<b>Other</b>	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** Not considered to be harmful to aquatic life. Avoid release to the environment.

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**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)

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

**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))





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phosphate)			04-212086200 8-56-0000 (PPORD)											4
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X / Y: Complies ; A: Active ; - / N: Exempt / Not Listed

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## Section 16: OTHER INFORMATION

<b>Prepared by</b>	Huber Engineered Materials Global Regulatory Affairs email: regulatory.affairs@huber.com
<b>Reason for Revision</b>	GB/T 16483-2008 GB/T 24774-2009 GB 13690 – 2009 GB/T 17519–2013
<b>GHS Classification</b>	
<b>Physical Hazard</b>	Not classified
<b>Health Hazard</b>	Not classified
<b>Environmental Hazard</b>	Hazardous to the aquatic environment - Chronic, category 2

### Label Elements

#### Symbols/Pictograms



<b>Signal Word</b>	None
<b>Hazard Statement</b>	H411 - Toxic to aquatic life with long lasting effects
<b>Abbreviations and acronyms</b>	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**