



Safire® 400

Japan-JIS Z 7253:2019
Occupational Safety and Health Act
GHS (Globally Harmonized System)

Issue Date 14/May/2025
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Revision Number 1.7.2
Page 1 of 10

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Safire® 400

Chemical Name Melamine poly(zinc phosphate)

Pure substance/mixture Substance

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

Internet www.huberadvancedmaterials.com

E-mail www.huberadvancedmaterials.com/contact

Emergency Telephone Number CHEMTREC: +1 800 424 9300 or International 1+703-527-3887
+81 03-3560-7316

2. HAZARD IDENTIFICATION

Japan GHS Classification

Physical Hazards Not classified.

Health Hazard Not classified.

Environmental Hazards Aquatic Chronic 2

GHS label elements
Symbols/Pictograms



Signal Word None

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

Precautionary Statements
Prevention Do not handle until all safety precautions have been read and understood

Safety Data Sheet

Safire® 400**Issue Date** 14/May/2025**Print Date** 01/May/2026**Revision Number** 1.7.2**Page** 2 of 10

Employ good industrial hygiene practice
Avoid release to the environment

Response

IF exposed or concerned: Get medical advice/attention
Wash with plenty of soap and water
Collect spillage

Storage

Store away from incompatible materials.
Keep in a dry place

Disposal

Dispose of contents/container to an approved waste disposal plant

Additional Information:

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture

Substance

Chemical Name	CAS NUMBER:	Weight-%	Japan	Japan GHS Classification
Melamine poly(zinc phosphate)	1271172-98-5	95.0 -100.0	N	Chronic Aquatic Toxicity, Category 2

Notes

The above values are not product specifications

4. FIRST AID MEASURES

If inhaled:

Remove victim to fresh air and keep at rest in a position comfortable for breathing

IF ON SKIN:

Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse

IF IN EYES:

In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes
Call a physician if irritation develops and persists

If swallowed:

Rinse mouth thoroughly with water

Most Important Symptoms and Effects, Both Acute and Delayed

Treat symptomatically

Self-Protection of the First Aider

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

Notes to Physician

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Safety Data Sheet

Safire® 400**Issue Date** 14/May/2025**Print Date** 01/May/2026**Revision Number** 1.7.2**Page** 3 of 10

Suitable Extinguishing Media Water spray (fog)
Foam
Dry chemical
Carbon dioxide (CO₂)

Unsuitable Extinguishing Media None known

Special hazards arising from the substance or mixture Avoid dust formation

Fire-fighting measures In case of fire and/or explosion do not breathe fumes
Water mist may be used to cool closed containers
Keep unauthorized personnel away

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

6. ACCIDENTAL RELEASE MEASURES

Protective Equipment and Precautions for Firefighters Avoid dust formation
Ensure adequate ventilation
Use personal protection recommended in Section 8
Avoid contact with eyes and skin. Wear suitable personal protection equipment.
Keep unauthorized personnel away

Environmental Precautions Keep out of drains, sewers, ditches and waterways
Disposal considerations
See section 13 for more information

Methods and material for containment and 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 Minimize use of water during clean-up
Recommended filter type: High efficiency particulate air filter (HEPA filter)

Other Information Not applicable

7. HANDLING AND STORAGE

Handling

Technical measures Provide adequate ventilation as well as local exhaust at critical locations
Ensure adequate ventilation
Use personal protection equipment
See section 8 for more information

Advice on safe handling Minimize dust generation and accumulation

Conditions for safe storage, including any incompatibilities Keep containers tightly closed in a cool, well-ventilated place

Hygiene Measures Wash hands thoroughly after handling

Safety Data Sheet

Safire® 400

Issue Date 14/May/2025

Print Date 01/May/2026

Revision Number 1.7.2

Page 4 of 10

Storage**Packaging compatibilities** Keep/store only in original container

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits Provide adequate ventilation as well as local exhaust at critical locations**Engineering Measures** Ensure adequate ventilation, especially in confined areas**Personal Protective Equipment****Respiratory Protection** In case of inadequate ventilation wear respiratory protection**Hand protection** For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn**Eye Protection** Wear safety glasses with side shields (or goggles)**Skin and Body Protection** Wear suitable protective clothing.
Chemical resistant apron.**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice
Wash thoroughly after handling
Avoid contact with eyes and skin
Do not breathe dust

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid, Powder
Color	White to light yellow
Odor	None
Odor Threshold	No information available
Melting Point / Melting Range	No data available
Boiling Point	No data available
Freezing Point	No information available
Autoignition Temperature	> 1000 °C
Evaporation Rate	Not applicable Solid
Flammability	Not readily flammable ----- Solid - (EU A10)
Explosive Properties	Not Explosible based on 1 m3 Chamber, ASTM E1226
Vapor Pressure	No data available
Water Solubility	0.1 to 100 mg/L Slightly soluble
Partition coefficient	No data available
Viscosity	Not applicable Solid
Specific Gravity	No data available
Oxidizing Properties	Not oxidizing
Decomposition Temperature	>325 °C
Flash Point	Not applicable. Solid.
pH:	5.0 - 5.5 , < / =0.3% suspension - Water
Melting point / Freezing point	> 650 °C
Initial boiling point and boiling range	Not applicable Solid
Relative Vapor Density	Not applicable Solid
Bulk Density	0.51 +/- 0.3 g/ml

Safety Data Sheet

Safire® 400

Issue Date 14/May/2025

Print Date 01/May/2026

Revision Number 1.7.2

Page 5 of 10

Relative Density	2.4 +/- 0.3 g/cm ³ (20 °C)
Solubility in other solvents	No data available (25 °C)
VOC Content (%)	Not applicable
Particle Characteristics	D50 = 2.5 – 4.0 microns (80% below 10 microns)

10. STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions
Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	None known
Conditions to avoid	Incompatible materials. Strong oxidizing agents.
Incompatible materials	Strong acids
Hazardous decomposition products	None known

11. TOXICOLOGICAL INFORMATION

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

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

11.1. Information on toxicological effects

Safire® 400

Acute Toxicity	Based on available data, the classification criteria are not met.
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.

Safety Data Sheet

Safire® 400

Issue Date 14/May/2025

Print Date 01/May/2026

Revision Number 1.7.2

Page 6 of 10

Skin Corrosion/Irritation	Based on available data, the classification criteria are not met.
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.
Specific target organ toxicity - Single exposure	Based on available data, the classification criteria are not met.
Specific target organ toxicity - Repeated exposure	Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

Melamine poly(zinc phosphate)

Aquatic toxicity	Toxic to aquatic life with long lasting effects
Ecotoxicity	Based on available data, the classification criteria are not met.
Persistence and degradability	No data available
Bioaccumulation	No data available.
Mobility in soil	No data available
Hazardous to the ozone layer	No data available

13. DISPOSAL CONSIDERATIONS

Disposal	Dispose of in accordance with federal, state and local regulations
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal

14. TRANSPORT INFORMATION

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

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

Safety Data Sheet

Safire® 400**Issue Date** 14/May/2025**Print Date** 01/May/2026**Revision Number** 1.7.2**Page** 7 of 10**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**

Safety Data Sheet

Safire® 400

Issue Date 14/May/2025

Print Date 01/May/2026

Revision Number 1.7.2

Page 8 of 10

15. REGULATORY INFORMATION

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

Poisonous and Deleterious Substances Control Act

Not applicable

Industrial Safety and Health Act (ISHA)

Not applicable under the Ordinance on Prevention of Hazards due to Specified Chemical Substances

Not applicable under the Ordinance on Prevention of Organic Solvent Poisoning

Substances requiring name labeling or notification (Designated Hazardous Substances)

Not applicable.

PRTR and Promotion of Chemical Management Law:

Not applicable

Fire Services Act

Not applicable

Japan - Specified Chemical Substances

Class I specified chemical substances

Not regulated.

Class II specified chemical substances

Not regulated.

Monitoring chemical substances

Not regulated.

Priority Assessment Chemical Substances (PACs)

Not regulated.

Reporting Exempted Substances

Not regulated.

Global Inventories

Pure substance/mixture

Substance

Chemical Name	CAS NUMBER:	EC No	EU REACH registrati on number	Australia (AIIC)	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

Legend-Inventories

KECL - Korean Existing and Evaluated Chemical Substances

Safety Data Sheet

Safire® 400**Issue Date** 14/May/2025**Print Date** 01/May/2026**Revision Number** 1.7.2**Page** 9 of 10

IECSC - China Inventory of Existing Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances
TSCA (Toxic Substances Control Act)
DSL (Domestic Substance List)
NDSL (Non-Domestic Substances List)
Japan - ISHL Notifiable Substances
ENCS - Japan Existing and New Chemical Substances

16. OTHER INFORMATION

Prepared by	Huber Engineered Materials Global Regulatory Affairs (Email – HEM.HAMRegulatory@huber.com)
Reason for Revision	This SDS complies with the requirements of JIS Z 7252:2019 and JIS Z 7253:2019 (Japan)
Bibliography	NITE GHS Classified list Japan Society for occupational health (2015) recommendation of allowable concentrations, etc. ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value
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) SVHC (Substances of Very High Concern) BOD (Biochemical oxygen demand) COD (Chemical oxygen demand) ICAO (International Civil Aviation Organization) IMDG (International Maritime Dangerous Goods) ADR (European Agreement Concerning the International Carriage of Dangerous Goods by Road) RID (Agreement Concerning the International Carriage of Dangerous Goods by Rail) SCBA (Self-Contained Breathing Apparatus) Positive Pressure PNEC (Predicted No Effect Concentration) GHS (Globally Harmonized System) 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

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Safety Data Sheet

Safire® 400

Issue Date 14/May/2025

Print Date 01/May/2026

Revision Number 1.7.2

Page 10 of 10

End of Safety Data Sheet