




1. Product and Company Identification

- 1.1. Product Name Firescoff
 Product Number 1000, 1413, 4414, B415
 REACH No A registration number is not available for this substance as the substance or its uses are exempted from registration. The annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.
- 1.2. Relevant Intended Use flux, firecoat, heat shield, anti-oxidant surfactant, nano-nucleation
- 1.3. Supplier NVENTA Inc
 PO Box 13778, Scottsdale, AZ 85267-3778, USA
 +1 800-535-4980
- 1.4. Emergency Poison Control Hotline +1 800-222-1222

2. Hazards Identification

- 2.1. GHS Classification of the substance or mixture
- | | | | |
|------|----------------------|----------------|-----------|
| H302 | Harmful if swallowed | GHS Category 3 | NFPA (H1) |
| H314 | Skin corrosion | GHS Category 3 | NFPA (H1) |
| H318 | Moderate eye damage | GHS Category 3 | NFPA (H1) |
- 2.2. GHS Label elements
- | | | | | |
|-------------|---------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Pictogram | |  |  |  |
| Signal word | Warning | | | |
- 2.3. GHS Precautionary Statements
- | | |
|------------------|---------------------------------------------------------------------------------------------------------------------------------|
| P234 | Keep only in original container |
| P260 | Do not breathe dust |
| P264 | Wash skin thoroughly after handling |
| P280 | Do not eat, drink, or smoke when using this product |
| P281 | Use personal protective equipment as required |
| P301, P330, P331 | IF SWALLOWED: rinse mouth. Do NOT induce vomiting |
| P303, P353 | IF ON SKIN (or hair): Remove clothing. Rinse skin with water |
| P304, P340 | IF INHALED: Remove victim to fresh air and keep comfortable |
| P305, P351, P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. |
| P363 | Wash contaminated clothing before reuse |
| P701 | DO NOT FREEZE. Recommended storage above 72F/ 25C |
- 2.4. Hazards not otherwise classified or not covered by GHS - NONE

3. Composition / Information on Ingredients

- 3.1. Substances
 Water, antioxidants, nano-monoxide ceramic, dissolution dispensing aids, stabilizing agents.
- 3.2. Hazardous Components
- | | | | | |
|-----------------|-----------|-----|-------------|------------------|
| Phosphoric Acid | 7664-38-2 | <2% | 1 mg/m3 TWA | H302, H314, H318 |
|-----------------|-----------|-----|-------------|------------------|

4. First Aid Measures

- 4.1. Description of first aid measures
- | | |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General advice | Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. |
| Inhalation | Remove person to fresh air. Seek medication attention if symptoms persist |
| Eyes | Flush cautiously but thoroughly with water for 15 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. Seek immediate medical attention |
| Skin | Rinse skin with water. If spilled on clothing, change clothes. Seek medical attention if symptoms persist |

Ingestion Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth out with water. Remove person to fresh air. Seek medical attention if symptoms persist.

4.2. Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in section 2.2 and/or in section 11

4.3. Indication of any immediate medical attention and special treatment needed - NA

5. Firefighting Measures

5.1. Extinguishing media – Substance is non-combustible. Use any fire-fighting agent appropriate for surrounding material.

5.2. Special hazards arising from the substance or mixture
Oxides of phosphorous, Sodium oxides. Avoid strong oxidizers.
Hazardous polymerization will NOT occur

5.3. Advice for firefighters – Wear self contained breathing apparatus for fire fighting if necessary

6. Accidental Release Measures

6.1. Personal precautions, protective equipment, and emergency procedures
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
For Personal protection see Section 8

6.2. Environmental precautions
May be allowed to be flushed down sewer. First check with local water treatment plant. Please do not landfill.

6.3. Methods and materials for containment and cleaning up
Sorbents may be used. For disposal considerations see Section 13

7. Handling and Storage

7.1. Precautions for safe handling
Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventative fire protection.
For precautions see Section 2.2

7.2. Conditions for safe storage, including any incompatibilities
Recommended storage temperature above 72F/ 25C
Do NOT FREEZE
Do NOT open container. It is purged with inert gas to prevent premature oxidation of the nano-ceramic catalyst. Keep container tightly closed in a dry and well-ventilated place.
Shelf life: 2 years

7.3. Specific end use(s)
Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated

8. Exposure Controls / Personal Protection

8.1. Engineering Controls
Brazing may produce fumes and gasses hazardous to health. Avoid breathing these fumes and gases. Use adequate ventilation. SEE ANSI Z49.1 Safety in Welding and Cutting published by the American Welding Society, 550 NW 42nd Ave Miami FL 33126.

Emergency eyewash fountains and safety showers should be available in the immediate vicinity of industrial use/handling. Provide exhaust ventilation of other engineering controls to keep the airborne concentrations of vapor or dusts (total/respirable) below the applicable workplace exposure limits.

8.2. Respiratory protection
Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present. Use suitable respiratory protective device or adequate ventilation when aerosol or mist is formed.

8.3. Protection of skin
Glove material has to be impermeable and resistant to the product being handled.

8.4. Eye protection
Safety glasses with side shields or goggles

- 8.5. General hygienic measures The usual precautionary measures are to be adhered to when handling chemicals. Keep away from food, beverage, and feed sources. Immediately remove all soiled and contaminated clothing. Wash hands before and after tasks. Do not inhale gases, fumes, dust, vapor. Avoid contact with the eyes and skin.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties	
Appearance	Clear liquid/ White ceramic solid coating
Odor	Odorless
Odor Threshold	NA
pH	>7 (Basic)
Relative density	1.10-1.25
Flash point	Not flammable
Evaporation rate (Ether =1)	NA
Flammability (solid, gas)	Not flammable
Upper/lower flammability or explosive limits	NA
Vapor pressure (Pa)	NA
Solubility	Water soluble
Auto-ignition temperature	NA
Decomposition temperature	NA

10. Stability and Reactivity

- 10.1. Reactivity – Avoid strong oxidizers
- 10.2. Chemical Stability – Stable under normal conditions. Rapid crystallization with extremes in temperature. Absorbs oxygen and carbon dioxide from the air.
- 10.3. Possibility of hazardous reactions – In very rare cases, may react with strong oxidizers, metal hydrides, or alkali metals generating hydrogen gas that could create an explosion hazard.
- 10.4. Conditions to avoid – Storage with strong oxidizers. No decomposition if used and stored according to specifications.
- 10.5. Hazardous decomposition products – May include inorganic metal and non-metal oxides.

11. Toxicological Information

11.1. Information on toxicological effects – Water based fluxes have a low order of toxicity	
Acute toxicity (oral)	7500 mg/kg : LD50 Rat (estimated)
Acute toxicity (dermal)	No additional information
Acute toxicity (inhalation)	No additional information
Skin corrosion / irritation	No additional information
Serious eye damage / irritation	No additional information
Respiratory sensitization	No additional information
Skin sensitization	No additional information
Carcinogenicity	No component of this product present at levels greater than 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC, ACGIH, NTP, OSHA
Reproductive toxicity	No additional information
Aspiration hazard	No additional information

12. Ecological Information

- 12.1. Toxicity
- Fish LC50 – Carassius auratus (goldfish) – 178mg/l – 72h
- Invertebrates EC50 – Daphnia magna (water flea) – 1400mg/l – 48h
- Algae IC50 – Desmodesmus subspicatus (green algae) 158 mg/l – 96h
- 12.2. Persistence and degradability – Readily degradable in the environment
- 12.3. Bioaccumulative potential – No additional information
- 12.4. Other adverse effects – In high concentrations, it is possible that nano-ceramic antioxidant particles may interrupt the take-up of soil-bound nutrients and cause damage to trees or vegetation by root absorption.

13. Disposal Considerations

- 13.1. Waste treatment methods – It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11.) Consult federal, state/ provincial and local regulations regarding the proper disposal of waste material that may contain some amount of this product.
- 13.2. Packaging disposal – Please do not landfill.
- 13.3. All containers maybe recycled locally or voluntarily returned to the manufacturer for recycling.

14. Transport Information

- 14.1. DOT (US Domestic Surface) Not Regulated/ Non Hazardous/ No air transport restrictions
- 14.2. IMDG (Ocean transport) Not Regulated/ Non Hazardous
- 14.3. ICAO/ IATA Not Regulated/ Non Hazardous/ No air transport restrictions

15. Regulatory Information

- 15.1. REACH No. A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration, or the registration is envisaged for a later registration deadline.
- 15.2. SARA 302 Components None of the ingredients is listed
- 15.3. SARA 311/312 Hazards Chronic
- 15.4. SARA 313 Components None of the ingredients is listed
- 15.5. California Prop 65 Components This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.
- 15.6. Canada Domestic Substances List (DSL) All ingredients are listed
- 15.7. Canada NPRI Ingredient Disclosure Limit 0.1% None of the ingredients is listed

16. Other Information

- 16.1. Law may require the submission of this SDS, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied is for use only in connection with occupational safety and health.
- 16.2. This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.
- 16.3. The information contained herein has been compiled from sources considered by NVENTA Inc to be dependable and is accurate to the best of the Company’s knowledge. The information relates to the specific material designated herein, and does not relate to the use in combination with any other material or any other process. NVENTA Inc assumed no responsibility for injury to the recipient or third persons for any damage to any property resulting from misuse of the controlled material.
- 16.4. The responsibility to provide a safe workplace remains with the user. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.