



Safety Data Sheet

Product Name: Phosphoramidon, CF

Reviewed on: 5 December 2012

1. Identification of Substance:

- **GHS Product identifier:** Phosphoramidon, CF
- **Other means of identification: Catalog Number:** EI006
- **Application of the substance / the preparation:** N/A
- **Manufacturer/Supplier:**
R&D Systems Inc.
614 McKinley Place N.E.
Minneapolis, MN 55413
USA
1-800-343-27475
- **For product related questions call:** 1-800-343-7475. In Europe call: +44(0)1235-529449.
- **Emergency information:** In case of a chemical emergency, spill, leak, fire, or accident call **CHEMTREC** at 1-800-424-9300 (US or Canada). Outside USA and Canada: +1 703-527-3887 (collect calls accepted).

2. Hazards Identification:

- **Classification: Regulation (EC) No 1272/2008 [EU-GHS/CLP]:** Methanol
Flammable Liquid 2
Acute Toxicity, Oral 3
Acute Toxicity, Inhalation 3
Acute Toxicity, Dermal 3
STOT, Single Exposure, 2
- **Signal Word:** DANGER
- **Hazard Statements:** H225: Highly flammable liquid and vapour. H301: Toxic if swallowed. H311: Toxic in contact with skin. H331: Toxic if inhaled. H370: Causes damage to organs.
- **Precautionary Statements:** P210: Keep away from heat/sparks/ open flames/hot surfaces. No smoking. P233: Keep container tightly closed. P241: Use explosion-proof electrical equipment. P242: Use only non-sparking tools. P243: Take precautionary measure against static discharge. P280: Wear protective gloves/protective clothing/eye protection/face protection. P264: Wash hands thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P260: Do not breath dust/ fume/gas/mist/ vapours/spray. P271: Use only outdoors or in a well-ventilated area. P321: For specific treatment read this MSDS thoroughly.
- **Responses:**
IF SWALLOWED: Immediately call a Poison Control Center or physician. See specific treatment in this MSDS. Rinse mouth.
IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell. See specific treatment in this MSDS. Remove/take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician. See specific treatment in this MSDS.
IN CASE OF FIRE: Use alcohol resistant foam, carbon dioxide, or dry chemical to extinguish.
IF EXPOSED OR CONCERNED: Call a POISON CENTER or doctor/physician.
- **Classification according to EU Directives 67/548/EEC or 1999/45/EC:** F: Highly flammable. Xn: Harmful.
- **R-phrases:** R11: Highly flammable. R20/21/22: Harmful by inhalation, in contact with skin and if swallowed. R68/20/21/22: Harmful: possible risk of irreversible effect through inhalation, in contact with skin and if swallowed.
- **S-phrases:** S36/37: Wear suitable protective clothing and gloves. S16: Keep away from sources of ignition-No smoking. S45: In case of accident or if you feel unwell, seek medical advice immediately (show label if possible). S51: Use only in well-ventilated areas. S1/2: Keep locked up and out of reach of children. S7: Keep container tightly closed.
- **Special Hazards:** none.





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3. Information on Ingredients:

- **Description:** Methanol

Contains	CAS No.	EC-No.	Index-No.	Content
Methanol	67-56-1	-		>90%

4. First Aid Measures:

- **After inhalation:** Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- **After skin contact:** Wash off with soap and plenty of water. Take victim immediately to a hospital. Consult a physician.
- **After eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Show this MSDS.
- **After swallowing:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Call a physician. Show this MSDS.
- **Most important symptoms and effects, both acute and delayed:** Unknown
- **Indication of any immediate medical attention and special treatment needed:** No data available

5. Fire Fighting Measures:

- **Suitable extinguishing agents:** Dry chemical, carbon dioxide, water spray or alcohol-resistant foam.
- **Special hazards arising from the substance or mixture:** Emits toxic fumes under fire conditions. Carbon oxides.
- **Protective equipment:** Wear self contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
- **Further information:** Use water spray to cool unopened containers.

6. Accidental Release Measures:

- **Personal precautions, protective equipment and emergency procedures:** Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate all personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
- **Environmental precautions:** Prevent further leakage or spillage is safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
- **Methods and materials for containment and cleaning up:** Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

7. Handling and Storage:

- **Precautions for safe handling:** Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition – No Smoking. Take measures to prevent the buildup of electrostatic charge.
- **Conditions for safe storage, including incompatibilities:** Store locked up. Store in a cool place. Keep container tightly closed in a dry and well ventilated place.

8. Exposure Controls and Personal Protection:

- **Control parameters:**
Component: Methanol: UK EH40 WEL Workplace Exposure Limits: STEL 250 ppm, 333 mg/m³. TWA 200 ppm, 266 mg/m³.
NIOSH REL: STEL 250 ppm, 325 mg/m³. TWA 200 ppm, 260 mg/m³.



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- **Appropriate engineering controls:** Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling product.

Personal Protective Equipment:

Eye and Face Protection: Tightly fitting safety goggles. Face shield (8-inch minimum).

Skin Protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection: Complete suit protection against chemicals, flame retardant antistatic protective clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate use full-face respirator.

9. Physical and Chemical Properties:

- | | |
|---------------------------------------------------------------|--------------------------------------------------------------------|
| ▪ Appearance: Colorless Liquid | Upper/lower flammability or explosive limits: Not available |
| ▪ Odor: Pungent odor | Vapor density : Not available |
| ▪ Odor threshold: Not available | Vapor pressure: Not available |
| ▪ pH: Not available | Relative density: Not available |
| ▪ Melting point/freezing point: Not available. | Boiling point/Boiling range: Not available |
| ▪ Partition coefficient: noctanol/water: Not available | Auto igniting: Not available |
| ▪ Flash point: Not available | Decomposition temperature: Not available |
| ▪ Water solubility: Soluble | Viscosity: Not available |
| ▪ Evaporation rate: Not available | |
| ▪ Flammability (solid, gas): Not available | |

10. Stability and Reactivity:

- **Reactivity:** Strong oxidizers, alkalis and acids, phenols, urea, strong oxidizers.
- **Chemical Stability:** Contains the following stabilizer: Methanol (>3 - <10%).
- **Possibility of hazardous reactions:** no data available.
- **Conditions to avoid:** Heat, flames.
- **Incompatible materials:** Strong oxidizers, alkalis and acids, phenols, urea, strong oxidizers.
- **Hazardous decomposition products:** no data available.

11. Toxicological Information:

- **Acute toxicity:**
Methanol: rat oral – LD50 = 6200 mg/kg; mouse oral – LD50 = 400 mg/kg
- **Skin corrosion/irritation:**
Methanol: rabbit dermal – 16 g/kg.
- **Serious eye damage/irritation:** no data available.
- **Respiratory or skin sensitization:** no data available
- **Germ cell mutagenicity:** no data available.
- **Carcinogenicity:** no data available.
- **Reproductive toxicity:** no data available.
- **Specific target organ toxicity (STOT) -single exposure:** acute intoxication causes CNS depression as observed by narcosis, in coordination, lethargy, drowsiness and prostration. A latent period follows the initial intoxication in which formic acid accumulates in the body causing metabolic acidosis.
- **Specific target organ toxicity (STOT) -repeated exposure:** no data available.
- **Aspiration hazard:** No data available
- **Information on likely routes of exposure:** Routes of entry anticipated; oral, dermal, inhalation.



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- **Symptoms related to the physical, chemical and toxicological characteristics:**
 - Inhalation:** Causes conjunctivitis, headache, giddiness, insomnia, gastric disturbances, and bilateral blindness.
 - Ingestion:** Causes acute intoxication followed by a latent period of metabolic acidosis and severe abdominal, leg and back pain, followed by blindness.
 - Skin contact:** Methanol – no data available.
 - Eye contact:** Causes serious eye irritation which can lead to blindness.
- **Delayed and immediate effects and also chronic effects from short and long term exposure:** Acute intoxication is manifested by signs of narcosis. This is followed by formic acid accumulation in the body causing metabolic acidosis. Severe abdominal pain and severe abdominal, leg and back pain, followed by blindness.

12. Ecological Information:

- **Ecotoxicity:** low acute toxicity to aquatic organisms. LD50 > 100 mg/L
- **Biodegradability:** Reacts with nitrogen dioxide in polluted atmospheres to product methyl nitrite. It is a volatile organic substance.
- **Bioaccumulative potential:** no data available.
- **Mobility in soil:** no data available.
- **Other adverse effects:** As a volatile organic compound, it can contribute to the formation of photochemical smog in the presences of other volatile organic compounds.

13. Disposal Considerations:

- **Disposal methods:** Dispose of waste in accordance to applicable national, regional, or local regulations. Contact a licensed professional waste disposal service to dispose of this material.
- **Contaminated packaging:** Dispose in the same manner as unused product.

14. Transport Information:

- **ADR/RID ADN/ADNR IMDG IATA/DOT**

ADR/DOT/:	UN Number:	UN 1230
RID	Proper Shipping Name:	Methanol
	Hazard class:	3 (6.1)
	Packing group:	II
IATA:	UN Number:	UN 1230
	Proper Shipping Name:	Methanol
	Hazard class:	3 (6.1)
	Packing group:	II
IMDG:	UN Number:	UN 1230
	Proper Shipping Name:	Methanol
	Hazard class:	3 (6.1)
	Packing group:	II
	Marine Pollutant:	No



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15. Regulations:

- **US Federal and State Regulations**

- TSCA (Toxic Substances Control Act):** Methanol is listed.

- SARA 313:** Methanol is listed.

- SARA 311/312 Hazards:** Acute Health Hazard.

- CERCLA Reportable Quantity:** 5,000 pounds.

- California Proposition 65:** Methanol is not listed on California's listing of known or potential carcinogens.

16. Other Information:

- **R-phrases:** R11: Highly flammable. R20/21/22: Harmful by inhalation, in contact with skin and if swallowed. R68/20/21/22: Harmful: possible risk of irreversible effect through inhalation, in contact with skin and if swallowed.
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