



# SAFETY DATA SHEET

Name of Product:

**Alpine RF-14F**

Product #: I000144  
Revision Date: Jan. 20, 2016

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## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

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PRODUCT NAME: Alpine RF-14F  
SYNONYMS: Deicing Fluid, Antiicing Fluid, Runway Deicer.  
PRODUCT CODES: I000144

MANUFACTURER: NACHURS ALPINE SOLUTIONS

CORPORATE ADDRESS: 421 Leader Street  
Marion, OH 43302, United States

PHONE: 800-622-4877 (USA)  
800-265-2268 (CANADA)

EMERGENCY PHONE: United States: Chemtrec: 800-424-9300 (CCN# 15189)  
Canada: CANUTEC: 613-996-6666  
I TECH 877-324-4402

CHEMICAL NAME: Potassium Formate  
CHEMICAL FAMILY: Organic acid, potassium salt  
CHEMICAL FORMULA: HCOOK

PRODUCT USE: Deicing fluid, Antiicing fluid.

PREPARED BY: Nachurs Alpine Solutions Technical Services


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## SECTION 2: HAZARDS IDENTIFICATION

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GHS ELEMENTS:

Hazard Classification: Acute Toxicity – Inhalation (Category 4).  
Eye Irritation (Category 2B).

Pictogram: 

Signal Word: Warning

Hazard Statements: Harmful if inhaled.  
Causes eye irritation.

Precautionary Statements: Avoid breathing mist, spray or dried product dust.  
Use only outdoors or in a well ventilated area.  
Wash skin thoroughly after handling. Wear protective gloves, clothing, eye and face protection.  
If swallowed, rinse mouth. Do NOT induce vomiting.  
If on hair or skin, remove all contaminated clothing and rinse skin with water.  
If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing.  
If in eyes, rinse carefully with water for several minutes. Remove contact lenses, if able and continue rinsing.  
Immediately call a poison center or doctor/physician. See First Aid instruction for specific treatment.  
Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.  
Store in a well ventilated place. Store in a secured location.  
Dispose of contents in accordance with local, regional, state and national regulations.

POTENTIAL HEALTH EFFECTS

EYES: May cause irritation.  
SKIN: May cause irritation.  
INGESTION: May cause gastrointestinal irritation, nausea, vomiting and diarrhea.  
INHALATION: May cause irritation in dried form. Do not breathe dust.

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ACUTE HEALTH HAZARDS: Possible skin and eye irritation. Possible respiratory irritation from breathing mist, spray or dried product dust.

CHRONIC HEALTH HAZARDS: None known.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None known.

## CARCINOGENICITY:

OSHA: No  
ACGIH: No  
NTP: No  
IARC: No  
CA Prop 65: No

SECTION 2 NOTES: This material has been classified as a Class 3B Combustible Liquid by past OSHA standards. There is no classification for this hazard in the current American OSHA Hazard Communication Standard (29CFR 1910.1200).

## SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT:			CAS No.
Potassium Formate	50%		590-29-4
Water	50%		7732-18-5
Corrosion Inhibitor	<1%		Proprietary

SARA 313 REPORTABLE: N/A

OSHA PEL-TWA: N/A  
OSHA PEL STEL: N/A  
OSHA PEL CEILING: N/A  
ACGIH TLV-TWA: N/A  
ACGIH TLV STEL: N/A  
ACGIH TLV CEILING: N/A

## SECTION 4: FIRST AID MEASURES

EYES: Flush with water immediately and thoroughly for 15 minutes. If irritation persists, seek medical attention.

SKIN: Thoroughly wash with soap and water. If irritation persists, seek medical attention.

INGESTION: Call a physician immediately. Do not induce vomiting without medical advice.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. Seek medical attention.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Treat symptomatically.

## SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR: Not flammable.

FLASH POINT:  
F°: >212  
C°: >100

METHOD USED: Closed cup.

AUTOIGNITION TEMPERATURE:  
F°: >750  
C°: >400

THERMAL DECOMPOSITION: >360°C

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## NFPA HAZARD CLASSIFICATION

HEALTH: 1  
FLAMMABILITY: 0  
REACTIVITY: 0  
OTHER: 0

## HMIS HAZARD CLASSIFICATION

HEALTH: 1  
FLAMMABILITY: 0  
REACTIVITY: 0  
PROTECTION: B

EXTINGUISHING MEDIA: Water or media suitable for surrounding material.

SPECIAL FIRE FIGHTING PROCEDURES: Proper safety equipment to include SCBA operated in positive pressure mode.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Carbon monoxide and/or carbon dioxide may be released.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide and/or carbon dioxide.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

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ACCIDENTAL RELEASE MEASURES: Confine the spill to a diked area or sump, if possible, and recover as much of the product as possible. Place in suitable containers. Dispose in accordance with all federal, state, and local regulations.

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## SECTION 7: HANDLING AND STORAGE

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HANDLING AND STORAGE: Store in suitable containers made of mild steel, stainless steel, plastic or fiberglass.

OTHER PRECAUTIONS: Always use good safety and industrial hygienic practices.

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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ENGINEERING CONTROLS: Good hygienic operating protocols are always recommended.

VENTILATION: Provide local ventilation as necessary.

RESPIRATORY PROTECTION: Respiratory protection is not normally required unless excessive heat or reaction results in release of carbon dioxide or carbon monoxide. In enclosed spaces, these gases can displace oxygen causing possible suffocation, thus use a self-contained breathing apparatus. Do not use air purifying respirators.

EYE PROTECTION: Safety goggles and full face shield.

SKIN PROTECTION: Rubber gloves.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: N/A

WORK HYGIENIC PRACTICES: Wash hands thoroughly after handling.

EXPOSURE GUIDELINES: N/A

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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APPEARANCE: Clear, blue liquid.

ODOR: Mild odor.

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ODOR THRESHOLD:	No data available.
PHYSICAL STATE:	Liquid.
pH AS SUPPLIED:	9.0 - 11.0
MELTING POINT:	Unknown
FREEZING POINT:	-63 °F, -53 C°
BOILING POINT:	Unknown
FLASH POINT:	>212°F, >100°C
METHOD USED:	Tagged Closed Cup
EVAPORATION RATE:	N/A
FLAMMABLE LIMITS IN AIR:	Not flammable.
VAPOR PRESSURE (mmHg):	No data available.
VAPOR DENSITY (AIR = 1):	No data available.
SPECIFIC GRAVITY (20°C):	1.33
DENSITY (20°C):	11.1 lb/gallon (1.33 kg/L)
SOLUBILITY IN WATER:	Complete
PARTITION COEFFICIENT:	n-octanol/water – N/A
PERCENT SOLIDS BY WEIGHT:	50%
PERCENT VOLATILE:	50%
VOLATILE ORGANIC COMPOUNDS (VOC):	None
AUTOIGNITION TEMPERATURE:	N/A
THERMAL DECOMPOSITION:	N/A
VISCOSITY:	9.6 cPs @20°C

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## SECTION 10: STABILITY AND REACTIVITY

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	STABLE	UNSTABLE
STABILITY:	x	
CONDITIONS TO AVOID (STABILITY):	Extreme heat.	
INCOMPATIBILITY (MATERIAL TO AVOID):	Strong acids or strong oxidizing agents.	
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:	Carbon monoxide and/or carbon dioxide.	
HAZARDOUS POLYMERIZATION:	Will not occur.	

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## SECTION 11: TOXICOLOGICAL INFORMATION

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TOXICOLOGICAL INFORMATION: Potassium Formate (CAS# 590-29-4)

LD50 (Oral, mouse): 5500 mg/kg  
LD50 (Dermal, rat) : >2000 mg/kg  
LC50 (Inhalation, rat) : >0.67 mg/l (4hr)

Irritation and corrosion: Eyes (rabbit): No eye irritation  
Skin (rabbit): No skin irritation

SECTION 11 NOTES: Handle in accordance with good industrial hygiene and safety practice

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## SECTION 12: ECOLOGICAL INFORMATION

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ECOLOGICAL INFORMATION: Avoid release to the environment.

LC<sub>50</sub> (Oncorhynchus mykiss, 96 hr :>1000 mg/l  
LC<sub>50</sub> (Pimephales promelas, (fathead minnow), 96 hr :>1000 mg/l  
EC<sub>50</sub> Water flea (Daphnia magna), 48 hr : >1000 mg/l  
EC<sub>50</sub> (Pseudokirchneriella subcapitata), 72 hr :>1000 mg/l (growth rate)

SECTION 12 NOTES: This substance is not considered to be persistent, bioaccumulating nor toxic (PBT), nor very persistent nor very bioaccumulating (vPvB).

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## SECTION 13: DISPOSAL CONSIDERATIONS

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WASTE DISPOSAL METHOD: Reclaim and reuse as much as possible. Dispose in accordance with all federal, state, and local regulations.

RCRA HAZARD CLASS: No.

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## SECTION 14: TRANSPORT INFORMATION

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U.S. DEPARTMENT OF TRANSPORTATION:

GROUND TRANSPORTATION:

PROPER SHIPPING NAME: Alpine RF-14F  
HAZARD CLASS: N/A  
ID NUMBER: N/A  
PACKING GROUP: N/A  
LABEL STATEMENT: N/A

WATER TRANSPORTATION (IMDG):

PROPER SHIPPING NAME: Alpine RF-14F  
HAZARD CLASS: N/A  
ID NUMBER: N/A  
PACKING GROUP: N/A  
LABEL STATEMENTS: N/A

AIR TRANSPORTATION (IATA):

PROPER SHIPPING NAME: Alpine RF-14F  
HAZARD CLASS: N/A  
ID NUMBER: N/A  
PACKING GROUP: N/A  
LABEL STATEMENTS: N/A

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## SECTION 15: REGULATORY INFORMATION

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### CHEMICAL INVENTORY LISTS:

TSCA (U.S. Toxic Substances Control Act):	Yes
TSCA Section 12(b):	No
DSL (Canadian Domestic Substances List):	Yes
EINCS (European Inventory of Existing Commercial Chemical Substances):	Yes
AICS (Australia):	Yes
IECSC (China):	Yes
ENCJ (Japan):	Yes

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): No

CLEAN AIR ACT (CAA): Contains no priority air pollutants.

CLEAN WATER ACT (CWA): Contains no priority water pollutants.

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## SECTION 16: OTHER INFORMATION

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**DISCLAIMER:** The information contained herein is offered only as a guide to the handling of this specific material and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations. No warranty of any kind is given or implied and NACHURS ALPINE SOLUTIONS will not be liable for any damages, losses, injuries or consequential damages which may result from the use or reliance on any information contained herein.

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