



Material Safety Data Sheet

United Phosphorus, Inc.

NFPA	PPE		

Issued Date 12-Dec-2007

Revision Date 20-Nov-2009

Revision Number: 5

1. PRODUCT AND COMPANY IDENTIFICATION

UPI
 630 Freedom Business Center
 Suite 402
 King of Prussia, PA 19406

Emergency Telephone Number
 Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
 Medical: Rocky Mountain Poison Control Center
 (866) 673-6671 (24hrs)

Company Information
 UPI

Contact Information
 Customer Service
 R&D Technical Service

Phone Number
 1-800-438-6071
 610-878-6100

Available Hrs
 8:00 am to 5:00 pm EST
 8:00 am - 5:00 pm (EST)

Product Name Clopyr AG
EPA Reg # 70506-94
Recommended Use herbicide
Product Code 12U-148

2. HAZARDS IDENTIFICATION

Emergency Overview
 May cause irritation of respiratory tract
 May cause eye and skin irritation

Appearance Red brown.

Physical State Liquid.

Odor Sweet.

Potential Health Effects

Eyes
Skin
Inhalation

May cause slight corneal injury. Irritation to the eyes is expected to be temporary..
 Prolonged irritation may cause moderate irritation..
 Contains isopropanol: excessive exposure to isopropanol may cause eye, nose, and throat irritation. .

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients Name

Chemical Name	CAS-No	Weight %	OSHA PEL
Monoethanolamine	141-43-5	11.38	8 mg/m ³ 3 ppm
Isopropanol	67-63-0	3.8	980 mg/m ³ 400 ppm
Clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid, monoethanolamine salt	57754-85-5	40.9	N/A

4. FIRST AID MEASURES

Eye Contact

Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye.
Call a poison control center or doctor for treatment advice.

Skin Contact

Take off contaminated clothing.
Rinse skin immediately with plenty of water for 15-20 minutes.
Call poison control center or doctor for treatment advice.

Inhalation

Move person to fresh air.
If person is not breathing, call 911 or an ambulance, then give artificial respiration.
Call a poison control center or doctor for further treatment advice.

Ingestion

Call a physician or Poison Control Center immediately
Have person sip a glass of water if able to swallow
Do not induce vomiting unless told to do so by a poison control center or doctor
Never give anything by mouth to an unconscious person

Notes to Physician

Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flammable Explosive Properties

Flash Point

47.2°C / 117°F

Autoignition Temperature

Not available

Flammability Limits in Air

Not available

Extinguishing Media

Water spray, Foam Carbon dioxide (CO₂) Dry chemical.

Fire/Explosion Hazard

Keep product and empty container away from heat and sources of ignition

Hazardous Combustion Products

No information available.

NFPA

Health 2

Flammability 1

Instability 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Remove all sources of ignition. Avoid contact with the skin and the eyes. Use personal protective equipment.
Environmental Precautions	Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits..
Methods for Clean-up	Remove all ignition sources. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling	Keep out of reach of children. Do not eat, drink or smoke when using this product. Remove all sources of ignition. Wear personal protective equipment. Check that all equipment is properly bonded and grounded.. Remove and wash contaminated clothing before re-use.
Storage	Keep out of the reach of children. Keep away from open flames, hot surfaces and sources of ignition. Keep in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL
Monoethanolamine	3 ppm	8 mg/m ³ 3 ppm
Isopropanol	200 ppm	980 mg/m ³ 400 ppm

Engineering Controls	Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems. .
-----------------------------	--

Personal Protective Equipment

Eye/face Protection

Where there is potential for eye contact have eye flushing equipment available.. Use eye protection to avoid eye contact. .

Skin Protection

Wear protective gloves/clothing.

Respiratory Protection

Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134. .

General Hygiene Considerations

Do not eat, drink or smoke when using this product. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Red brown	Odor	Sweet
Physical State	Liquid	pH	approx.8
Boiling Point/Range	Not available	Melting Point/Range	Not available
Specific Gravity	1.161 @20 C	Solubility	Soluble
Evaporation Rate	Not available	Vapor Pressure	23.5 MM hG @ 20 C
Vapor Density	Not available	VOC Content	Not available
Viscosity	Not available	Molecular Weight	No data available
Bulk Density	9.75 lb/gal	Percent Solids	Not available
Percent Volatiles	Not available		

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions Combustible
Conditions to Avoid	Keep away from open flames, hot surfaces and sources of ignition. Extremes of temperature and direct sunlight.
Incompatible Materials	oxidizers. Halogenated organics. Brass, copper, zinc and aluminum.
Hazardous Decomposition Products	Nitrogen oxides (NOx). Hydrogen chloride. Chlorinated pyridine.
Possibility of Hazardous Polymerization	Hazardous polymerisation does not occur

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information

Clopyr AG -
Acute oral LD50 (rat) = >5,000 mg/kg
Acute dermal LD50 (rat) = > 2,000 mg/kg
Inhalation LC50 (rat) = > 2.12 mg/L - 4 hr
Eye irritation (rabbit) = Mild irritant
Skin irritation (rabbit) = Not an irritant
Sensitizer (guinea pig) = Not a sensitizer

Chronic Toxicity

There are no known carcinogenic chemicals in this product

Carcinogenicity

12. ECOLOGICAL INFORMATION

Ecotoxicity

12. ECOLOGICAL INFORMATION

For Clopyralid:

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50 > 100 mg/L in most sensitive species)

Bioconcentration potential is low (BCF <100 or LofPow <3)

Biodegradation under aerobic laboratory conditions is below detectable limits.

Mobility in soil is very high (KOC between 0 and 50)

Photolysis half life in water 262 days, in soil >12 years. Under aerobic soil conditions the half life is 71 days. .

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If the wastes cannot be disposed of by use or according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. .

Contaminated Packaging Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT When shipped domestically by highway in non-bulk containers this product can be shipped as not regulated.
When shipped in bulk use IMDG shipping description

ICAO

UN-No	UN1993
Proper Shipping Name	Flammable liquid, n.o.s (Isopropanol)
Hazard Class	3
Packing Group	PG III

IATA

UN-No	UN1993
Proper Shipping Name	Flammable liquid, n.o.s (Isopropanol)
Hazard Class	3
Packing Group	PG III
ERG Code	3L

IMDG/IMO

Proper Shipping Name	Flammable liquid, n.o.s (Isopropanol)
Hazard Class	3
UN-No	UN1993
Packing Group	PG III
EmS No.	F-E, S-E
Special Provisions	223, 274, 330, 944, 955

15. REGULATORY INFORMATION

International Inventories

12U-148 - Clopyr AG

Monoethanolamine

DSL	Listed
EINECS/ELINCS	Listed
ENCS	Listed
CHINA	Listed
KECL	Listed

Isopropanol

DSL	Listed
EINECS/ELINCS	Listed
ENCS	Listed
CHINA	Listed
KECL	Listed

Clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid, monoethanolamine salt

EINECS/ELINCS	Listed
----------------------	--------

USA

Federal Regulations

SARA 313

Y

Chemical Name	CAS-No	Weight %
Isopropanol	67-63-0	3.8

SARA 311/312 Hazardous Categorization

Chronic Health Hazard	No
Acute Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Monoethanolamine	141-43-5	11.38		Listed.		
Isopropanol	67-63-0	3.8		Listed.		

CERCLA

Chemical Name	RQ
Isopropanol	Listed.

RCRA

Chemical Name	RCRA - D Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Isopropanol	D001		

Pesticide Information

State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Monoethanolamine	Listed.	Substance no. 0835 Listed. Substance no. 0835 Special hazard.	Listed.	Listed.	Listed.
Isopropanol	Listed.	Substance no. 1076 Listed. Substance no. 2079 Listed. Substance no. 2422 Listed. Substance no. 2423 Listed. Substance no. 2425 Listed. Substance no. 2426 Listed. Substance no. 2427 Listed. Substance no. 2428 Listed. Substance no. 2429 Listed. Substance no. 2430 Listed. Substance no. 2381 Listed. Substance no. 1076 Special hazard.	Listed.	Listed.	Listed.

International Regulations

Mexico - Grade Not available

Chemical Name	Category	Carcinogen Status	Exposure Limits
Monoethanolamine			8 mg/m ³
Isopropanol			980 mg/m ³

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

Not determined

Chemical Name	NPRI
Isopropanol	X

16. OTHER INFORMATION

Revision Date 20-Nov-2009

Revision Summary

Update section 15

UPI, Inc. believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with other materials or in any process. Further, since the conditions and methods of use are beyond the control of UPI, Inc. UPI, Inc. expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

End of MSDS