

# Material Safety Data Sheet

Version .1  
Revision Date 12/13/2005

MSDS Number 300000014886  
Print Date 12/13/2005

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ACT CMIK-S

Company : Air Products and Chemicals, Inc  
7201 Hamilton Blvd.  
Allentown, PA 18195-1501

Telephone : 800-345-3148

Emergency telephone number : 800-523-9374 USA  
01-610-481-7711 International

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Concentration (Weight)
DIMETHYLACETAMIDE	127-19-5	>= 99%
2,5,8,11 Tetramethyl 6 dodecyn-5,8 Diol Ethoxylate	169117-72-0	<= 1 %

## 3. HAZARDS IDENTIFICATION

### Emergency Overview

Components of the product may affect the nervous system.

### Potential Health Effects

Inhalation : May cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure. May cause headache and dizziness.

Skin contact : If absorbed through the skin, may cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties.

Ingestion : May cause central nervous system effects, such as headache, nausea, vomiting, abdominal pain, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure.

Chronic Health Hazard : This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Suspect reproductive hazard - contains material which may injure unborn child.

### Exposure Guidelines

Target Organs : Kidney.  
Liver.  
Heart.  
Central nervous system.  
Eyes.  
Skin.

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## Aggravated Medical Condition

Neurological disorders Liver disorders Kidney disorders Asthma.

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## 4. FIRST AID MEASURES

- General advice : Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
- Eye contact : Rinse immediately with plenty of water for at least 15 minutes.
- Skin contact : Wash with water and soap as a precaution.
- Ingestion : Do not induce vomiting. Prevent aspiration of vomit. Turn victim's head to the side.
- Inhalation : Move to fresh air.
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## 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam.  
Carbon dioxide (CO<sub>2</sub>).  
Dry chemical.  
Dry sand.  
Limestone powder.
- Specific hazards : Incomplete combustion may form carbon monoxide. Ammonia gas may be liberated at high temperatures. In case of incomplete combustion an increased formation of oxides of nitrogen (NO<sub>x</sub>) is to be expected. Use of water may result in the formation of very toxic aqueous solutions. Do not allow run-off from fire fighting to enter drains or water courses. Downwind personnel must be evacuated.
- Special protective equipment for fire-fighters : Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.
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## 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Evacuate personnel to safe areas.
- Methods for cleaning up : Place in appropriate chemical waste container.
- Additional advice : Evacuate area and do not approach spilled product. If possible, stop flow of product.
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## 7. HANDLING AND STORAGE

### Handling

Use personal protective equipment. When using, do not eat, drink or smoke.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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## Engineering measures

Provide readily accessible eye wash stations and safety showers.  
Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

## Personal protective equipment

Respiratory protection : Not required for properly ventilated areas.

Hand protection : Nitrile rubber.  
The breakthrough time of the selected glove(s) must be greater than the intended use period.

Eye protection : Chemical safety glasses.

Skin and body protection : No specific recommendation.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Form : Liquid.

Color : Clear.

Odor : Amine-like.

Relative density : 0.9392 (water = 1)

pH : 4.8

Boiling point/range : 266 °F (130 °C)

Melting point/range : < 5 °F (< -15 °C)

Flash point : 140 °F (60 °C)

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## 10. STABILITY AND REACTIVITY

Stability : Stable under normal conditions.

Materials to avoid : Chlorinated solvents.

Hazardous decomposition products : Nitric acid.  
Ammonia.  
Nitrogen oxides (NOx).  
Nitrogen oxide can react with water vapors to form corrosive nitric acid.  
Carbon monoxide.  
Carbon dioxide (CO<sub>2</sub>).

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## 11. TOXICOLOGICAL INFORMATION

### Acute Health Hazard

Ingestion : No data is available on the product itself.

Ingestion - Components

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DIMETHYLACETAMIDE  
2,5,8,11 Tetramethyl 6 dodecyn-5,8  
Diol Ethoxylate

LD50 : 4,300 mg/kg  
LD50 : > 2,000 mg/kg

Species : Rat.  
Species : Rat.

Inhalation : No data is available on the product itself.

Inhalation - Components  
DIMETHYLACETAMIDE

LC50 (1 h) : 2475 ppm

Species : Rat.

Skin. : No data is available on the product itself.

Skin. - Components  
DIMETHYLACETAMIDE  
2,5,8,11 Tetramethyl 6 dodecyn-5,8  
Diol Ethoxylate

LD50 : 2,240 mg/kg  
LD50 : > 2,000 mg/kg

Species : Rabbit.  
Species : Rabbit.

## Chronic Health Hazard

N,N-dimethylacetamide has caused embryotoxic and teratogenic effects in laboratory animals. Repeated exposure to levels above the occupational exposure limit produces adverse effects on the liver, kidneys, bone marrow, and the cardiovascular system. Similar effects may be seen following repeated skin exposure.

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## 12. ECOLOGICAL INFORMATION

### Ecotoxicity effects

Aquatic toxicity : No data is available on the product itself.

Toxicity to other organisms : No data available.

### Persistence and degradability

Mobility : No data available.

Bioaccumulation : No data is available on the product itself.

Bioaccumulation - Components  
DIMETHYLACETAMIDE

Negligible bioaccumulation potential.

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## 13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products : Contact supplier if guidance is required.

Contaminated packaging : Dispose of container and unused contents in accordance with federal, state, and local requirements.

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## 14. TRANSPORT INFORMATION

### DOT

Proper shipping name : Combustible liquid, n.o.s. (Dimethylacetamide)  
Class : NON  
UN/ID No. : NA1993  
Packing group : III

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## IATA

Proper shipping name : Not Dangerous Goods (Dimethylacetamide)  
UN/ID No. : UN9999

## IMDG

Proper shipping name : Not Dangerous Goods (Dimethylacetamide)  
UN/ID No. : UN9999  
Packing group : III

## TDG

Proper shipping name : Not Dangerous Goods (Dimethylacetamide)  
UN/ID No. : UN9999  
Packing group : III

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## 15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA) 12(b) Component(s):  
DIMETHYLACETAMIDE

OSHA Hazard Communication Standard (29 CFR 1910.1200) Hazard Class(es)  
Toxic. Reproductive toxin. Combustible Liquid.

Country	Regulatory list	Notification
USA	TSCA	Included on Inventory.
EU	EINECS	Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer.
Canada	DSL	Included on Inventory.
Australia	AICS	Not on Inventory. Notifications have been sent to the National Occupational Health and Safety Commission of Australia.
Japan	ENCS	Included on Inventory.
South Korea	ECL	Included on Inventory.
China	SEPA	Included on Inventory.
Philippines	PICCS	Included on Inventory.

EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level:  
None.

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)  
This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

WHMIS Hazard Classification  
Combustible Liquid

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## 16. OTHER INFORMATION

HMIS Rating

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Health : 2\*  
Flammability : 2  
Physical hazard : 0

Prepared by : Air Products and Chemicals, Inc. Global EH&S Product Safety Department

For additional information, please visit our Product Stewardship web site at  
<http://www.airproducts.com/productstewardship/>

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