

## SAFETY DATA SHEETS

**This SDS packet was issued with item:**

078818132

N/A



Issuing Date 14-Jan-2014

Revision Date 14-Jan-2014

Revision Number 1

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

**Product Name** LeukoChek  
**Product Code(s)** N834  
**Recommended Use** For Further Manufacturing Use Only  
Not for Human or Animal Drug Use

**Company**  
AMRESKO, LLC  
6681 Cochran Road  
Solon, Ohio 44139

**Emergency Telephone Number** Chemtrec 1-800-424-9300

**Company Phone Number** 1-800-448-4442  
**E-mail Address** info@amresco-inc.com

## 2. HAZARDS IDENTIFICATION

### GHS - Classification

**Classification** Skin Sensitizer 1

**Signal Word** Warning



**Hazard Statements** H317 - May cause an allergic skin reaction

**Precautionary Statements** P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P302+ P352 - IF ON SKIN: Wash with plenty of soap and water P309 + P311 - If exposed or you feel unwell: Call a POISON CENTRE or doctor/physician

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	EC No.	REACH Reg. No.	CAS-No	Weight %	Classification
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Trade Secret	Listed	Not available	-	0.1	F;R11 Xn;R22 Xi;36/38
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#### 4. FIRST AID MEASURES

<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. May cause an allergic skin reaction.
<b>Inhalation</b>	Move to fresh air. If breathing becomes difficult, give oxygen.
<b>Ingestion</b>	Clean mouth with water and afterwards drink plenty of water.
<b>Notes to Physician</b>	Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

<b>Flammable Properties</b>	Not flammable.
<b>Flash Point</b>	Not determined
<b>Suitable Extinguishing Media</b>	Dry chemical, CO2, water spray or regular foam.
<b>Hazardous Combustion Products</b>	Carbon oxides.
<b>Explosion Data</b>	
<b>Sensitivity to Mechanical Impact</b>	Not sensitive.
<b>Sensitivity to Static Discharge</b>	Not sensitive.
<b>Protective Equipment and Precautions for Firefighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Avoid contact with skin, eyes and clothing. Use personal protective equipment. Ensure adequate ventilation.
<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for Cleaning Up</b>	Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

#### 7. HANDLING AND STORAGE

<b>Handling</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place.
<b>Incompatible Products</b>	Oxidizing agents.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Engineering Measures

Showers  
Eyewash stations  
Ventilation systems.

### Personal Protective Equipment

#### Eye/Face Protection

Tightly fitting safety goggles.

#### Skin and Body Protection

Wear protective gloves/clothing.

#### Respiratory Protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Clear, colorless haze-free

### Odor

No information available

### Odor Threshold

No information available

### Decomposition Temperature °C

No information available

### Freezing Point

No information available

### Initial Boiling Point

No information available

### Physical State

Liquid

### pH

No data available

### Flash Point

Not determined

### Autoignition Temperature

No data available

### Boiling Point/Range

No data available

### Melting Point/Range

No data available

### Flammability Limits in Air

**Upper** No data available **Lower** No data available

### Explosive Properties

No information available

### Oxidizing Properties

No information available

### Evaporation Rate

No data available

### MMHG @ 37.8 C

No data available

### Vapor Density

No data available

### Specific Gravity

No data available

### Solubility

No information available

### Partition Coefficient

No data available

### (n-octanol/water)

### Viscosity

No information available

## 10. STABILITY AND REACTIVITY

### Stability

Stable under recommended storage conditions.

### Incompatible Products

Oxidizing agents.

### Conditions to Avoid

None known based on information supplied.

### Hazardous Decomposition Products

Carbon oxides.

### Hazardous Polymerization

Hazardous polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

**Product Information** May be harmful if swallowed.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Trade Secret	1288 mg/kg ( Rat )	580 mg/kg ( Rabbit )	3900 mg/m <sup>3</sup> ( Rat ) 1 h

### Chronic Toxicity

**Chronic Toxicity** May cause an allergic skin reaction.

**Sensitization** Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons.

**Target Organ Effects** None known.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Trade Secret	EC50 = 53 mg/L 72 h EC50 = 30 - 100 mg/L 96 h EC50 = 117 mg/L 96 h EC50 3.59 - 15.6 mg/L 96 h	LC50 8 - 12.5 mg/L Pimephales promelas 96 h LC50 15 - 18.9 mg/L Pimephales promelas 96 h LC50 22.1 - 22.8 mg/L Pimephales promelas 96 h LC50 4.3 - 8.5 mg/L Oncorhynchus mykiss 96 h LC50= 1.31 mg/L Cyprinus carpio 96 h LC50= 4.5 mg/L Lepomis macrochirus 96 h LC50 5.8 - 7.5 mg/L Pimephales promelas 96 h LC50 10.2 - 22.5 mg/L Pimephales promelas 96 h LC50 6.2 - 9.6 mg/L Pimephales promelas 96 h LC50 13.5 - 18.3 mg/L Poecilia reticulata 96 h LC50 10.8 - 16.6 mg/L Poecilia reticulata 96 h LC50= 4.62 mg/L Oncorhynchus mykiss 96 h LC50= 4.2 mg/L Oncorhynchus mykiss 96 h LC50= 7.97 mg/L Brachydanio rerio 96 h LC50 9.9 - 20.1 mg/L Brachydanio rerio 96 h LC50 4.06 - 5.75 mg/L Lepomis macrochirus 96 h LC50 4.2 - 4.8 mg/L Lepomis macrochirus 96 h		EC50 = 1.8 mg/L 48 h
<b>Chemical Name</b>			<b>Log Pow</b>	
Trade Secret			= 1.6	

### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method** Dispose of material in accordance with all federal, state, and local regulations.

**Contaminated Packaging** Dispose of in accordance with all federal, state and local regulations.

### 14. TRANSPORT INFORMATION

**IATA** Not regulated

**DOT** Not regulated

### 15. REGULATORY INFORMATION

**REACH Title VII Restrictions** No information available.

Chemical Name	Dangerous Substances	Organic Solvents	Harmful Substances Whose Names Are to be Indicated on the Label	Pollution Release and Transfer Registry (Class II):	Pollution Release and Transfer Registry (Class I):	Poison and Deleterious Substances Control Law:
Trade Secret	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Component	ISHA - Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying	ISHA - Harmful Substances Requiring Permission	Toxic Chemical Classification Listing (TCCL) - Toxic Chemicals	Toxic Release Inventory (TRI) - Group I	Toxic Release Inventory (TRI) - Group II	
Trade Secret (0.1)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

#### International Inventories

TSCA	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

#### U.S. Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### SARA 311/312 Hazard Categories

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

#### Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

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

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

#### CERCLA

#### U.S. State Regulations

##### California Proposition 65

This product does not contain any Proposition 65 chemicals.

#### International Regulations

Mexico - Grade No information available.

Canada

#### WHMIS Hazard Class

D2A Very toxic materials



## 16. OTHER INFORMATION

Issuing Date 14-Jan-2014

Revision Date 14-Jan-2014

#### Revision Note

No information available

Recommended Restrictions No information available

**Disclaimer**

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of MSDS**



# SAFETY DATA SHEET

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Product Identifier

**Product Name** LeukoChek

### Other means of identification

**Product Code(s)** N834

**Synonyms** No information available

### Recommended use of the chemical and restrictions on use

**Recommended Use** For Further Manufacturing Use Only.

**Uses advised against** Not for Human or Animal Drug Use

### Details of the supplier of the safety data sheet

<b>Company Address</b>	<b>Manufacturer Address</b>
VWR International, LLC	VWR International, LLC
Radnor Corporate Center	28600 Fountain Parkway
100 Matsonford Road	Solon, Ohio 44139
Radnor, PA 19087-8660	

**Company Phone Number** 1-800-448-4442

**E-mail Address** info@amresco-inc.com

### Emergency Telephone Number

**Emergency Telephone Number** Chemtrec 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

### Classification

### OSHA Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122)

### Label elements

#### Emergency Overview

<b>Appearance</b> Clear, colorless haze-free	<b>Physical State</b> Liquid	<b>Odor</b> No information available
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### Hazards not otherwise classified (HNOC)

Not regulated

### Other Information

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Chemical Name	CAS-No	EC No.	Weight %	Trade Secret
Ammonium Oxalate Monohydrate	6009-70-7	-	1-5	Not applicable

#### 4. FIRST AID MEASURES

##### First Aid Measures

<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. May cause an allergic skin reaction.
<b>Inhalation</b>	Move to fresh air. If not breathing, give artificial respiration.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Rinse mouth.

##### Most important symptoms and effects, both acute and delayed

**Most Important Symptoms/Effects** No information available.

##### Indication of any immediate medical attention and special treatment needed

**Notes to Physician** Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

##### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** No information available.

##### Specific Hazards Arising from the Chemical

No information available.

##### Explosion Data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

##### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### 6. ACCIDENTAL RELEASE MEASURES

##### Personal precautions, protective equipment and emergency procedures

**Personal protection** Ensure adequate ventilation, especially in confined areas.

##### Environmental Precautions

**Environmental Precautions** See Section 12 for additional Ecological information.

##### Methods and material for containment and cleaning up

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Cleaning Up** Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

#### 7. HANDLING AND STORAGE

##### Precautions for Safe Handling

**Handling** Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible Products** Oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ammonium Oxalate Monohydrate 6009-70-7	-	-	-

**Appropriate engineering controls**

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Avoid contact with eyes. Safety glasses with side-shields.

**Skin and Body Protection** Wear protective gloves/clothing.

**Respiratory Protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical State</b>	Liquid	<b>Odor</b>	No information available
<b>Appearance</b>	Clear, colorless haze-free	<b>Odor Threshold</b>	No information available
<b>Color</b>	No information available		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
Melting point/freezing point	No information available	
Boiling Point/Range	No information available	
Flash Point (High in °C)	No information available	
Evaporation Rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor Density	No information available	
Specific Gravity	No information available	
Water Solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition Temperature	No information available	

<b>Decomposition Temperature</b>	No information available
<b>Kinematic viscosity</b>	No information available
<b>Dynamic viscosity</b>	No information available
<b>Explosive Properties</b>	No information available
<b>Oxidizing Properties</b>	No information available

**Other Information**

<b>Softening Point</b>	No information available
<b>Molecular Weight</b>	No information available
<b>VOC Content</b>	No information available
<b>Density</b>	No information available
<b>Bulk Density</b>	No information available

<b>10. STABILITY AND REACTIVITY</b>
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**Reactivity**

No data available

**Chemical Stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to Avoid**

Extremes of temperature and direct sunlight.

**Incompatible Materials**

Oxidizing agents.

**Hazardous Decomposition Products**

None known based on information supplied.

<b>11. TOXICOLOGICAL INFORMATION</b>
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**Information on likely routes of exposure****Product Information**

<b>Inhalation</b>	There is no data available for this product.
<b>Eye Contact</b>	There is no data available for this product.
<b>Skin Contact</b>	There is no data available for this product.
<b>Ingestion</b>	There is no data available for this product.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ammonium Oxalate Monohydrate 6009-70-7	-	-	-

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons.

**Mutagenic Effects** No information available.

**Carcinogenicity** No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ammonium Oxalate Monohydrate 6009-70-7	-	-	-	-

<b>Reproductive Toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Chronic Toxicity</b>	May cause an allergic skin reaction.
<b>Aspiration hazard</b>	No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document .

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

1.32% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Toxicity to Fish	Crustacea
Ammonium Oxalate Monohydrate 6009-70-7	-	-	-

**Persistence and Degradability**

No information available.

**Bioaccumulation/Accumulation**

No information available.

Chemical Name	Partition coefficient
Ammonium Oxalate Monohydrate 6009-70-7	-

**Other Adverse Effects**

No information available

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Waste Disposal Method**

Dispose of material in accordance with all federal, state, and local regulations.

**Contaminated Packaging**

Do not re-use empty containers.

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Ammonium Oxalate Monohydrate 6009-70-7	-	-	-	-

Chemical Name	California Hazardous Waste Status
Ammonium Oxalate Monohydrate 6009-70-7	-

**14. TRANSPORT INFORMATION****DOT**

Not regulated

**IATA**

Not regulated

**15. REGULATORY INFORMATION****International Inventories****TSCA**

Does not comply

DSL/NDL	Does not comply
EINECS/ELINCS	Does not Comply
ENCS	Does not Comply
IECSC	Complies
KECL	Does not Comply
PICCS	Complies
AICS	Complies

**Legend:**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Component	SARA 313 - Threshold Values %
Ammonium Oxalate Monohydrate 6009-70-7 ( 1-5 )	-

**SARA 311/312 Hazard Categories**

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

**Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ammonium Oxalate Monohydrate 6009-70-7	-	-	-	-

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Ammonium Oxalate Monohydrate 6009-70-7	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

**U.S. State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

Chemical Name	California Prop. 65
Ammonium Oxalate Monohydrate - 6009-70-7	-

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ammonium Oxalate Monohydrate 6009-70-7	-	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not regulated

**16. OTHER INFORMATION**

Issuing Date 14-Jan-2014

Revision Date 08-Jan-2016

**Revision Note**

No information available

**Disclaimer**

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. VWR International and its Affiliates shall not be held liable for any damage resulting from handling.

**End of Safety Data Sheet**