



Issuing Date 08-Jun-2010

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Revision Number 1

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

Product Name Acryl/Bis 29:1 Solution
Product Code(s) 0311
Recommended Use For Further Manufacturing Use Only
Not for Human or Animal Drug Use
Recommended Use Liquid acrylamide used in electrophoresis

Company
AMRESKO, LLC
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Solon, Ohio 44139

Emergency Telephone Number Chemtrec 1-800-424-9300

Company Phone Number 1-800-448-4442
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2. HAZARDS IDENTIFICATION

GHS - Classification

Classification Carcinogen 1B Germ Cell Mutagenicity 1B Toxic to Reproduction 2 Acute Toxicity Oral 3 Specific Target Organ Toxicity (repeated) 1 Acute Toxicity Inhalation 4 Skin Irritant 2 Eye Irritant 2 Skin Sensitizer 1

Signal Word Danger



Hazard Statements H301 - Toxic if swallowed H332 - Harmful if inhaled H312 - Harmful in contact with skin H315 - Causes skin irritation H319 - Causes serious eye irritation H317 - May cause an allergic skin reaction H350 - May cause cancer H340 - May cause genetic defects H361 - Suspected of damaging fertility or the unborn child H372 - Causes damage to organs through prolonged or repeated exposure

**Precautionary Statements**

P301+ P310 - IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician P308 + P313 - IF exposed or concerned: Get medical attention/advice P280 - Wear protective gloves/protective clothing/eye protection/face protection P302+ P352 - IF ON SKIN: Wash with plenty of soap and water P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	EC No.	REACH Reg. No.	CAS-No	Weight %	Classification
Acrylamide	EEC No. 201-173-7	Not available	79-06-1	27-31	Carc.Cat.2;R45 Muta.Cat.2;R46 Repr.Cat.3;R62 T;R25-48/23/24/25 Xn;R20/21 Xi;R36/38 R43
Methylene diacrylamide	EEC No. 203-750-9	Not available	110-26-9	1-5	-

**4. FIRST AID MEASURES**

**Eye Contact** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician

**Skin Contact** Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes

**Inhalation** Move to fresh air. If breathing becomes difficult, give oxygen

**Ingestion** Clean mouth with water and afterwards drink plenty of water

**Notes to Physician** Treat symptomatically

**5. FIRE-FIGHTING MEASURES**

**Flammable Properties** Not flammable

**Flash Point** Not determined

**Suitable Extinguishing Media** Dry chemical, CO2, water spray or regular foam

**Hazardous Combustion Products** Carbon oxides, Nitrogen oxides (NOx).

**Explosion Data**

**Sensitivity to Mechanical Impact** Not sensitive

**Sensitivity to Static Discharge** Not sensitive

**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** Avoid contact with skin, eyes and clothing. Use personal protective equipment. Ensure adequate ventilation

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

**Methods for Cleaning Up** Absorb with an inert material . Pick up and transfer to properly labeled containers. Ventilate area and wash spill site after material pickup is complete.

**7. HANDLING AND STORAGE**

**Handling** Handle in accordance with good industrial hygiene and safety practice. Protect from light. Protect from air.

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

**Incompatible Products** Strong oxidizing agents. Iron and Iron salts. Copper. Free radical initiators. Brass.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acrylamide 79-06-1	TWA: 0.03 mg/m <sup>3</sup>	TWA: 0.3 mg/m <sup>3</sup> (vacated) TWA: 0.03 mg/m <sup>3</sup> Skin	IDLH: 60 mg/m <sup>3</sup> TWA: 0.03 mg/m <sup>3</sup>
Methylene diacrylamide 110-26-9			

**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

<b>Appearance</b>	Clear and Colorless
<b>Odor</b>	No information available
<b>Odor Threshold</b>	No information available
<b>Decomposition Temperature °C</b>	No information available
<b>Freezing Point</b>	No information available
<b>Initial Boiling Point</b>	No information available
<b>Physical State</b>	Solution
<b>pH</b>	No data available
<b>Flash Point</b>	Not determined
<b>Autoignition Temperature</b>	No data available
<b>Boiling Point/Range</b>	No data available
<b>Melting Point/Range</b>	No data available
<b>Flammability Limits in Air</b>	<b>Upper</b> No data available <b>Lower</b> No data available
<b>Explosive Properties</b>	No information available
<b>Oxidizing Properties</b>	No information available
<b>Evaporation Rate</b>	No data available
<b>MMHG @ 37.8 C</b>	No data available
<b>Vapor Density</b>	No data available
<b>Specific Gravity</b>	No data available
<b>Solubility</b>	No information available
<b>Partition Coefficient (n-octanol/water)</b>	No data available
<b>Viscosity</b>	No information available

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under recommended storage conditions
<b>Incompatible Products</b>	Strong oxidizing agents. Iron and Iron salts. Copper. Free radical initiators. Brass.
<b>Conditions to Avoid</b>	Protect from air and light.
<b>Hazardous Decomposition Products</b>	Carbon oxides. Nitrogen oxides (NOx).
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

<b>Product Information</b>	Toxic by inhalation, in contact with skin or if swallowed. Irritating to eye, skin and respiratory system.
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Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Acrylamide	124 mg/kg ( Rat )	1680 µL/kg ( Rabbit ) 400 mg/kg ( Rat )	
Methylene diacrylamide	390 mg/kg ( Rat )		

### Chronic Toxicity

<b>Chronic Toxicity</b>	Substances known to be carcinogenic. Suspected mutagen.
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Chemical Name	ACGIH	IARC	NTP	OSHA
Acrylamide	A3	Group 2A	Reasonably Anticipated	X

**Target Organ Effects** Kidneys, Nerves.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Harmful to aquatic organisms.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Acrylamide		LC50= 109 mg/L Pimephales promelas 96 h LC50= 120 mg/L Brachydanio rerio 96 h LC50= 124 mg/L Pimephales promelas 96 h LC50= 162 mg/L Oncorhynchus mykiss 96 h LC50= 85 mg/L Lepomis macrochirus 96 h		EC50 = 98 mg/L 48 h

Chemical Name	Log Pow
Acrylamide	= -1.24

## 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**

**UN-No** 2810  
**Proper Shipping Name** TOXIC, LIQUID, ORGANIC, N.O.S. (CONTAINING ACRYLAMIDE)  
**Hazard Class** 6.1  
**Packing Group** III

**DOT**

**Proper Shipping Name** TOXIC, LIQUID, ORGANIC, N.O.S. (CONTAINING ACRYLAMIDE)  
**Hazard Class** 6.1  
**UN-No** 2810  
**Packing Group** III

**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:
Acrylamide	>=>0.1 % weight	Not applicable	X	Not applicable	2	Deleterious
Methylene diacrylamide	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
Acrylamide 79-06-1 ( 27-31 )	Not applicable	Not applicable	97-1-171, 0.1 % or more in mixtures	Not applicable	>= 0.1 %
Methylene diacrylamide 110-26-9 ( 1-5 )	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 contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Acrylamide	79-06-1	27-31	0.1

**SARA 311/312 Hazard Categories**

Acute Health Hazard Yes  
 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 contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act.:

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Acrylamide	79-06-1	27-31	Present	Group I		

**CERCLA**

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Acrylamide	5000 lb	5000 lb

**U.S. State Regulations**

**California Proposition 65**

This product contains the following Proposition 65 chemicals

Chemical Name	CAS-No	California Prop. 65
Acrylamide	79-06-1	Carcinogen

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

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Acrylamide	X	X	X	X	X

**International Regulations**

Mexico - Grade -

Chemical Name	Carcinogen Status	Exposure Limits
Acrylamide	A3	Mexico: TWA= 0.03 mg/m <sup>3</sup> Mexico: STEL= 0.06 mg/m <sup>3</sup>

Canada

**WHMIS Hazard Class**

D1B Toxic materials  
D2A Very toxic materials  
D2B Toxic materials



Chemical Name	NPRI
Acrylamide	X

**16. OTHER INFORMATION**

**Issuing Date** 08-Jun-2010

**Revision Date** 08-Jul-2011

**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**