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MATERIAL SAFETY DATA SHEET
REQUIRED UNDER SAFETY AND HEALTH REGULATION FOR SHIP REPAIRING

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SECTION 1. ----- CHEMICAL IDENTIFICATION -----

Product Name Acryl/Bis 19:1 Solution (40% w/v)
Product Code(s) A0006
Recommended Use For Further Manufacturing Use Only
Not for Human or Animal Drug Use
Recommended Use Liquid acrylamide used in electrophoresis

SECTION 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

SECTION 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	15-25	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	0-2	-

SECTION 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

SECTION 5. ----- FIRE FIGHTING MEASURES -----

Flammable Properties	Not flammable
Flash Point	Not determined
Suitable Extinguishing Media	Dry chemical, CO ₂ , water spray or regular foam
Hazardous Combustion Products	Carbon oxides, Nitrogen oxides (NO _x), Ammonia.
Explosion Data	
Sensitivity to Mechanical Impact	Not sensitive
Sensitivity to Static Discharge	Not sensitive

Specific Hazards Arising from the Chemical

Containers may explode when heated.

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

SECTION 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	Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Ventilate area and wash spill site after material pickup is complete.

SECTION 7. ----- HANDLING AND STORAGE -----

Handling	Handle in accordance with good industrial hygiene and safety practice. Protect from light.
Storage	Keep container tightly closed in a dry and well-ventilated place. Protect from air. Protect from light.
Incompatible Products	Strong oxidizing agents. Iron and Iron salts. Copper. Free radical initiators.Brass.

SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION - - - - -

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acrylamide 79-06-1	TWA: 0.03 mg/m ₃	TWA: 0.3 mg/m ₃ (vacated) TWA: 0.03 mg/m ₃ Skin	IDLH: 60 mg/m ₃ TWA: 0.03 mg/m ₃
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

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -**Appearance**

Clear, colorless

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

Solution

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

SECTION 10. -----STABILITY AND REACTIVITY -----

Stability Stable under recommended storage conditions
Incompatible Products Strong oxidizing agents. Iron and Iron salts. Copper. Free radical initiators. Brass.
Conditions to Avoid Protect from heat and direct sunlight.
Hazardous Decomposition Products Carbon oxides. Nitrogen oxides (NOx). Ammonia.
Hazardous Polymerization Hazardous polymerization may occur.

SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

Acute Toxicity

Product Information Irritating to eye, skin and respiratory system. Toxic by inhalation and if swallowed.

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

Chronic Toxicity Suspected carcinogen. Suspected mutagen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Acrylamide	A3	Group 2A	Reasonably Anticipated	X

Target Organ Effects Nerves, Liver, Heart.

SECTION 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

SECTION 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**SECTION 14. ----- TRANSPORT INFORMATION -----****IMDG/IMO****IATA** Regulated**UN-No** 2810**Proper Shipping Name** Toxic Liquid Organic N.O.S. (Containing Acrylamide)**Hazard Class** 6.1**Packing Group** III**DOT** Regulated**Proper Shipping Name** Toxic Liquid Organic N.O.S. (Containing Acrylamide)**Hazard Class** 6.1**UN-No** 2810**Packing Group** III**SECTION 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 (15-25)	Not applicable	Not applicable	97-1-171, 0.1 % or more in mixtures	Not applicable	>= 0.1 %
Methylene diacrylamide 110-26-9 (0-2)	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	15-20	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	95-100	Present	Group I		

CERCLA

Component	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:

Component	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 ³ Mexico: STEL= 0.06 mg/m ³

Canada

WHMIS Hazard Class

D1B Toxic materials

D2A Very toxic materials

D2B Toxic materials



Chemical Name	NPRI
Acrylamide	X

SECTION 16. ----- OTHER INFORMATION -----

Issuing Date	13-Aug-2009
Revision Date	03-Novr-2014
Revision Note	No information available.
Recommended Restrictions	No information available

Disclaimer

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End of MSDS