

Safety Data Sheet



Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product name MODELS – MDL07240, MDL07240HP and Assemblies incorporating these products

Product Code MSDS No.: ME-3001-03646

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) Membranes are used in gas separation processes

1.3 Details of the supplier of the safety data sheet

Manufacturer Air Liquide
2700 Post Oak Blvd.
Houston, TX 77056
United States
www.us.airliquide.com
sds@airliquide.com

Telephone (Technical) 713-896-2896

Telephone (Technical) 800-819-1704

1.4 Emergency telephone number

Manufacturer 800-424-9300 - CHEMTREC

Manufacturer +1 703-527-3887 - Outside United States

Section 2: Hazards Identification

EU/EEC

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP Not classified

DSD/DPD Not classified

2.2 Label Elements

CLP
Hazard statements No label element(s) required

DSD/DPD
Risk phrases No label element(s) required

2.3 Other Hazards

CLP According to Regulation (EC) No. 1272/2008 (CLP) this material is not considered hazardous.

DSD/DPD According to European Directive 1999/45/EC this preparation is not considered

dangerous.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 Not classified

2.2 Label elements

OSHA HCS 2012
Hazard statements No label element(s) required

2.3 Other hazards

OSHA HCS2012 This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

WHMIS Not classified

2.2 Label elements

WHMIS No label element(s) required

2.3 Other hazards

WHMIS In Canada, the product mentioned above is not considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Fully reacted epoxy resins and curing agents	NDA	0% TO 100%	NDA	EU DSD/DPD: Data lacking EU CLP: Data lacking OSHA HCS 2012: Data lacking	NDA
Metal tubing	NDA	0% TO 100%	NDA	EU DSD/DPD: Data lacking EU CLP: Data lacking OSHA HCS 2012: Data Lacking	NDA
Nylon filament	NDA	0% TO 100%	NDA	EU DSD/DPD: Data lacking EU CLP: Data lacking OSHA HCS 2012: Data Lacking	NDA

Polymeric fiber	NDA	0% TO 100%	NDA	EU DSD/DPD: Data lacking EU CLP: Data lacking OSHA HCS 2012: Data Lacking	NDA
Residual trace amounts of a carboxylic acid, an amine and silicone resin	NDA	0% TO 100%	NDA	EU DSD/DPD: Data lacking EU CLP: Data lacking OSHA HCS 2012: Data Lacking	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation	First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.
Skin	First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention.
Eye	First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
Ingestion	First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Under normal conditions of use, no health effects are expected.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician	No specific actions or treatments recommended related to exposure to this material.
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Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media	LARGE FIRE: Water spray, fog or regular foam. SMALL FIRES: Dry chemical, CO2, water spray or regular foam.
Unsuitable Extinguishing Media	No data available.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards	Some may burn, but none ignite readily.
Hazardous Combustion Products	Decomposition & combustion products may be toxic.

5.3 Advice for firefighters

Wear positive pressure self-contained breathing apparatus (SCBA).
Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions	No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.
Emergency Procedures	No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions

Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

Carefully shovel or sweep up spilled material and place in suitable container.

6.4 Reference to other sections

Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

Use good safety and industrial hygiene practices. Use appropriate Personal Protective Equipment (PPE) Avoid contact with skin and eyes.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Store in a cool, dry place.

7.3 Specific end use(s)

Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines

Currently there are no applicable exposure limits established for this material.

8.2 Exposure controls

Engineering Measures/Controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

In case of insufficient ventilation, wear suitable respiratory equipment.

Eye/Face

Wear safety glasses.

Skin/Body

Wear appropriate gloves.

Environmental Exposure Controls

Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Data lacking
Color	Data lacking	Odor	Data lacking
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking

Specific Gravity/Relative Density	Data lacking	Water Solubility	Data lacking
Solvent Solubility	Data lacking	Viscosity	Data lacking
Explosive Properties	Not relevant.	Oxidizing Properties:	Not relevant.
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not relevant.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

Hazardous polymerization not indicated.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

No data available.

10.6 Hazardous decomposition products

Carbon Monoxide, carbon dioxide, aldehydes, nitrogen oxides & compounds.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

Skin corrosion/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-RE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-SE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

Potential Health Effects

Inhalation

Acute (Immediate) Under normal conditions of use, no health effects are expected.

Chronic (Delayed) No data available

Skin

Acute (Immediate) Under normal conditions of use, no health effects are expected.

Chronic (Delayed) No data available

Eye

Acute (Immediate) Under normal conditions of use, no health effects are expected.

Chronic (Delayed) No data available

Ingestion

Acute (Immediate) Under normal conditions of use, no health effects are expected.

Chronic (Delayed) No data available

Section 12 - Ecological Information

12.1 Toxicity

Material data lacking.

12.2 Persistence and degradability

Material data lacking.

12.3 Bioaccumulative potential

Material data lacking.

12.4 Mobility in Soil

Material data lacking.

12.5 Results of PBT and vPvB assessment

No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste	Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
Packaging waste	Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications None

Canada

Labor

Canada - WHMIS - Classifications of Substances

Not Listed

Canada - WHMIS - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

China

Environment

China - Ozone Depleting Substances - First Schedule

Not Listed

China - Ozone Depleting Substances - Second Schedule

Not Listed

China - Ozone Depleting Substances - Third Schedule

Not Listed

Other

China - Annex I & II - Controlled Chemicals Lists

Not Listed

China - Dangerous Goods List

Not Listed

China - Export Control List - Part I Chemicals

Not Listed

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

Not Listed

Germany

Environment

Germany - TA Luft - Types and Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Not Listed

Germany - Water Classification (VwVwS) - Annex 3

Not Listed

Other

Germany - Specifically Regulated Chemicals in TRGS

Not Listed

Portugal

Other

Portugal - Prohibited Substances

Not Listed

United Kingdom

Environment

United Kingdom - Pollution Inventory - Schedule 1 - Thresholds for Releases to Air

Not Listed

Other

United Kingdom - Workplace Exposure Limits (WELs) - Substances in Review

Not Listed

United Kingdom - List of Dangerous Substances in Water

Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

Not Listed

United States -California

Environment

U.S. - California - Proposition 65 - Carcinogens List

Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

Not Listed

United States -Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

Not Listed

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Last Revision Date

03/February/2015

Preparation Date

08/December/2014

Disclaimer/Statement of Liability

To the best of Air Liquide's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either express or implied, are provided. The information contained herein relates only to this specific product. If this gas mixture is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.

Key to abbreviations

NDA = No data available