


### Section 1 - Chemical Product and Company Identification

<b>Product Name</b>	Gas Spec SS Selective Solvent 75%
<b>Synonyms</b>	N-methyldiethanolamine, MDEA, 2,2'-methyliminodiethanol
<b>Product Use</b>	Various
<b>Restrictions On Use</b>	Not Applicable
<b>Supplier</b>	CFR Chemicals 38451 Range Road 22 County of Red Deer T4E 2N6
<b>General Assistance</b>	1 (877) 269-3419
<b>Emergency Telephone</b>	<b>Not Dangerous Goods – Call General Assistance</b>
<b>Date of Preparation of SDS</b>	<b>January 6, 2020</b>

### Section 2 – Hazard Identification

<b>Signal Word</b>	Warning
<b>GHS Pictogram(s)</b>	
<b>Hazard Statement:</b>	
H302	Harmful if swallowed.
H316	Causes mild skin irritation.
H319	Causes serious eye irritation.
<b>Precautionary Statement</b>	
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/eye protection/face protection.
<b>Response</b>	
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301 + P312	IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
P330	Rinse mouth.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
<b>Storage</b>	No Statements
<b>Disposal</b>	
P501	Dispose of contents/container to an approved waste disposal unit.
<b>GHS Classification</b>	Acute Toxicity (oral) (Category 4) Skin corrosion/irritation (Category 3) Eye Irritation (Category 2A)
<b>HMIS Classification</b>	
<b>Health Hazard</b>	<b>2</b>
<b>Chronic Health Hazard</b>	<b>*</b>
<b>Flammability</b>	<b>1</b>



# Safety Data Sheet - GHS

## Gas Spec SS Selective Solvent 75%

Date of Revision: January 6, 2020

**Physical Hazards** 0

### Potential Health Effects

**Inhalation** May be harmful if inhaled.  
**Skin** Causes skin irritation.  
**Eye** Causes eye irritation.  
**Ingestion** Harmful if swallowed.

## Section 3 – Composition Information on Ingredients

HAZARDOUS INGREDIENT, Common Name	Hazardous Ingredient, Synonyms	PERCENT	CAS NUMBER
Methyldiethanolamine	N-methyldiethanolamine, MDEA, 2,2'- methyliminodiethanol * = Various ** = Mixture *** = Proprietary	75%	105-59-9
<b>Chemical Formula</b>	$C_5H_{13}NO_2$		

## Section 4 - First Aid Measures

**Inhalation** Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

**Eye Contact** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower lids. Check for and remove contact lenses. Continue to rinse for at least 30 minutes. Get medical attention.

**Skin Contact** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 15 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion** Do not induce vomiting. Do not give anything by mouth unless the person is fully conscious. Get medical attention.

### Most Important Symptoms/Effects both Acute and Delayed

Harmful if swallowed. Causes skin irritation and eye irritation.

**Note to Physician** Treat symptomatically.

## Section 5 – Fire-Fighting Measures

**Flash Point (°C)** 127°C  
**Flash Point Method** PMCC  
**Auto Ignition Temperature** 280°C  
**Conditions of Flammability** Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/ hot surface.  
**Extinguishing Media** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
**Unusual Fire/**



# Safety Data Sheet - GHS

## Gas Spec SS Selective Solvent 75%

Date of Revision: January 6, 2020

<b>Explosion Hazard</b>	No data available.
<b>Hazardous Combustion Products</b>	Carbon oxides, Nitrogen oxides..
<b>Fire Fighting Equipment</b>	Wear appropriate protective equipment and self-contained breathing apparatus with a full face-piece operated in positive pressure mode.
<b>Special Precautions for Firefighters</b>	No data available.

### Section 6 – Accidental Release Measures

<b>Personal precautions</b>	Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapour can accumulate in low areas.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
<b>Methods and materials for containment and cleaning up</b>	Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

### Section 7 – Handling and Storage

<b>Precautions for safe handling</b>	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
<b>Conditions for safe storage</b>	Store in cool, dry well ventilated area. Sensitive to light. Store in light-resistant containers. Hygroscopic material. Segregate from acids and acid forming substances. Suitable material for containers: Carbon Steel (Iron), Stainless steel 1.4401, Stainless steel 1.4301, High-density polyethylene (HDPE), glass.
<b>Incompatible Materials</b>	Oxidizing materials. Acids.

### Section 8 – Exposure Controls / Personal Protection

#### Occupational Exposure Limits

Ingredient Name	Exposure Limits
Methyldiethanolamine	None Established

#### Personal protective equipment

<b>Eye/face protection</b>	Chemical safety glasses with side shields to prevent eye contact. As a general rule do not wear contact lenses when handling chemicals. If contact is possible, the following protection should be worn: Splash goggles. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If inhalation hazards exist, a full-face respiratory may be required instead.
<b>Skin protection</b>	Wear chemical resistant gloves, impermeable protective clothing and safety shoes. Personal protective equipment for the body should be selected based on

the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**

Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary.

**General hygiene Considerations**

Handle in accordance with good industrial hygiene and safety. Eye wash fountains and safety showers must be easily accessible.

**Specific engineering controls**

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Use explosion-proof ventilation equipment.

### Section 9 – Physical and Chemical Properties

<b>Physical State</b>	Liquid	<b>Water Solubility</b>	miscible
<b>Appearance &amp; Odour</b>	Clear, colourless to pale yellow. Amine-like odour.	<b>Boiling Point</b>	Not applicable
<b>Vapour Pressure</b>	0.01 mmHg (20.0°C)	<b>Boiling Point Range</b>	246-248°C
<b>Vapour Density</b>	2.1 (Air = 1)	<b>Melting Point</b>	<-35°C
<b>Specific Gravity</b>	1.03 – 1.07	<b>Freezing Point</b>	<-35°C
<b>Partition coefficient (n-octonal/water)</b>	-1.08 (MDEA)	<b>Lower Explosive Limit (LEL)</b>	1.4% (MDEA)
<b>pH</b>	11.5 (10% solution in water)	<b>Upper Explosive Limit (UEL)</b>	8.8% (MDEA)
<b>Flashpoint (Method)</b>	127°C (PMCC) (Non-flammable)	<b>Auto Ignition temperature</b>	280°C (MDEA)
<b>Odour Threshold</b>	Not available.	<b>Evaporation Rate</b>	Not available.
<b>Flammability (Solid, Gas)</b>	Flammable at high temperatures.	<b>Viscosity</b>	Not available.
<b>Decomposition Temperature</b>	Not available.		

### Section 10 – Stability and Reactivity

<b>Reactivity</b>	No specific test data related to reactivity available for this product.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	Under normal conditions of storage and use, hazardous reactions will not occur
<b>Conditions to avoid</b>	Heat, flames and sparks.
<b>Materials to avoid</b>	Oxidizing materials. Acids.
<b>Hazardous decomposition products</b>	Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides, nitrous gases.

### Section 11- Toxicological Information

**Information on Likely Routes of Exposure**



# Safety Data Sheet - GHS

## Gas Spec SS Selective Solvent 75%

Date of Revision: January 6, 2020

**Inhalation** No data available.  
**Skin contact** Causes skin irritation.  
**Eye contact** Causes eye irritation.  
**Ingestion** Harmful if swallowed.  
**Acute and Chronic Toxicity** No data available.

### Acute toxicity

Product/Ingredient Name	Result	Species	Dose	Exposure
Methyldiethanolamine	LD50 Oral	Rat	46800mg/kg	-

**Skin corrosion/irritation** Skin – Rabbit – mild skin irritation.

**Serious eye damage/ irritation** Eyes – Rabbit – mild eye irritation.

### Respiratory or skin sensitization

No data available

### Mutagenicity

No data available

### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

### Reproductive toxicity

Reproductive Toxicity – Rat – Skin

Maternal Effects: Other Effects

### Teratogenicity

No data available

### Target Organ effects

No data available

### Aspiration hazard

No data available

### Delayed and Immediate Effects and also Chronic Effects from Short and Long Term Exposure

#### Short Term Exposure

**Potential immediate Health Effects** No data available.

**Potential Delayed Health Effects** No data available.

#### Long Term Exposure

**Potential immediate Health Effects** No data available.

**Potential Delayed Health Effects** No data available.

#### Potential Chronic Effects

No data available.

### Synergistic effects

No data available

## Section 12 – Ecological Information

### Toxicity

Product / Ingredient Name	Result	Species	Exposure
Methyldiethanolamine	Acute LC50 1466mg/L	Fish – Leuciscus idus	96 Hr
	Acute EC50 233mg/L	Daphnia – Daphnia magna	48 Hr

**Persistence and degradability** Material is not biodegradable.

**Bioaccumulative potential** No data available

**Mobility in soil** No data available

**PBT and vPvB assessment** No data available

**Section 13 – Disposal Considerations****Product**

Do not discharge substance/product into sewer system. Dispose of in accordance with national, regional, and local regulations.

**Contaminated packaging**

Dispose of as unused product in a licensed facility. Recommend crushing, puncturing, or other means to prevent unauthorized use of used containers. Do not cut, weld, or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled materials and runoff and contain with soil, waterways, drains, and sewers.

**Section 14 - Transportation Information****CANADA Transportation of Dangerous Goods (TDG)**

Not Dangerous Goods

**Environmental hazards**

Not a marine pollutant.

**Transportation in bulk,  
if applicable**

No data available

**Special Precautions**

No data available

**Section 15 – Regulatory Information****DSL (Canadian Domestic Substances List)  
and CEPA (Canadian Environmental Protection Act)**

All components of this product are in compliance with the chemical notification requirements of the NSN Regulations under CEPA, 1999.

**TSCA Inventory (8b)**

All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all the information required by the Hazardous Products Regulations.

**Section 16 – Other Information****REVISION SUMMARY:**

Date of Preparation     January 6, 2020

Date of Revision        January 6, 2020

SDS Prepared by: CFR Lab Manager

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# Safety Data Sheet - GHS

## Gas Spec SS Selective Solvent 75%

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