



Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Dyna-Plex 21C Mac-Cool 301

Liquid

Product Code: 14827

Miller Industrial Fluids, A PetroChoice Company

1751 W. Raymond Street

Indianapolis, Indiana 46221

Website: www.petrochoice.com

1-317-634-7300 Telephone

1-800-424-9300 US, Canada, Puerto Rico, Virgin Island - Emergency telephone (CHEMTREC)

+1-703-527-3887 International / Maritime Emergency telephone (CHEMTREC)

2. HAZARDS IDENTIFICATION

OSHA/HCS Status:

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture:

Skin Sensitization – Category 1

GHS Label Elements

Hazard Pictogram:



Signal Word:

WARNING

Hazard Statement:

H317 – May cause an allergic skin reaction

Precautionary Statements

- General:** Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
- Prevention:** Wear protective gloves. Avoid breathing vapor. Contaminated work clothing should not be allowed out of the workplace.
- Response:** IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs, seek medical advice/attention. Wash contaminated clothing before reuse.
- Storage:** Not applicable
- Disposal:** Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Other Hazards:** None known

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name: None

Formula: Mixture

Other means of identification: None

CAS Number/other identifiers: Not applicable

Component	CAS Number	Concentration %
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	60-100
4-(2-Nitrobutyl)morpholine	2224-44-4	0.1-1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

4. FIRST AID MEASURES

Eyes

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Get medical attention if irritation occurs.

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention. If unconscious, place in recovery position and get medical attention immediately.

Skin contact

Wash with plenty of soap and water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Most Important Symptoms/Effects, Acute and Delayed:

Potential acute health effects:

Eye contact: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Skin contact: May cause an allergic skin reaction.

Ingestion: No known significant effects or critical hazards.

Over exposure signs/symptoms:

Eye Contact: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Skin contact: Adverse symptoms may include the following:

Irritation

Redness

Ingestion: No known significant effects or critical hazards.

Indication of any immediate medical attention and special treatment needed:

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing air to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

In case of fire, use water spray (fog), foam, dry chemical or CO₂.

Unsuitable extinguishing media

None known.

Specific hazards arising from the chemical

No specific fire or explosion hazard.

Hazardous thermal decomposition products:

No specific data

Special protective actions for fire-fighters

No special measures are required.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill:

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via licensed waste disposal contractor.

Large spill:

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: See Section 1 for emergency contact information and Section 13 for waste disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Protective measures:

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene:

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits

Ingredient Name	Exposure Limits
Distillates (petroleum), hydrotreated heavy naphthenic	ACGIH TLV (United States, 6/2013) TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction
	NIOSH REL (United States, 4/2013) TWA: 5 mg/m ³ 10 hours. Form: Mist STEL: 10mg/m ³ 15 minutes. Form: Mist
	OSHA PEL (United States, 2/2013) TWA: 5 mg/m ³ 8 hours. Form: Mist

Appropriate engineering controls:

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

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 contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection: Recommended: Oil impervious gloves.

Body protection: Recommended: Oil impermeable apron.

Other skin protection: Appropriate footwear and any additional skin protection measures 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. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Amber

Physical state: Liquid

Odor: Petroleum

Odor Threshold: Not available

pH: 8-9

Melting point/freezing point: 0°C (32°F)

Initial boiling point and boiling range: 270°C (518°F)

Flash point (Cleveland Open Cup): 160°C (320°F)

Evaporation rate: Not available

Flammability (solid, gas): Not available

Lower/upper flammability or explosive limits: Lower: 0.9%; Upper: 7%

Vapor pressure: <0.0013 kPa (<0.01 mm Hg) [40°C]

Vapor density: >1 [Air = 1]

Relative density: 0.9

Solubility: Insoluble in the following materials: cold water and hot water

Partition Coefficient (n-octanol/water): Not available

Auto-ignition Temperature: >260°C (>500°F)

Decomposition Temperature: Not available

Viscosity: Kinematic (40°C (104°F)): 0.45 cm²/s (45 cSt)

10. STABILITY AND REACTIVITY

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability: The product is stable

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will occur.

Conditions to avoid: No specific data

Incompatible materials: Reactive or incompatible with the following materials: oxidizing materials

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity:

Product/ingredient name	Result	Species	Dose	Exposure
Distillates (petroleum), hydrotreated heavy naphthenic	LD50 Oral	Rat	>5000 mg/kg	-

Irritation/Corrosion:

Product/ingredient name	Result	Species	Score	Exposure	Observation
Distillates (petroleum), hydrotreated heavy naphthenic	Skin – Severe irritant	Rabbit	-	500 mg	-

Sensitization: There is no data available

Carcinogenicity: No data available

Classification:

Product/ingredient name	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
Distillates (petroleum), hydrotreated heavy naphthenic	-	-	-	A4	-	-

Specific Target Organ Toxicity:

Single Exposure: There is no data available

Repeated Exposure: There is no data available

Aspiration hazard:

Name	Result
Distillates (petroleum), hydrotreated heavy naphthenic	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure: Dermal contact. Eye contact. Ingestion.

Potential Acute Health Effects

Eye contact: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Skin contact: May cause an allergic skin reaction.

Ingestion: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Skin contact: Adverse symptoms may include the following: irritation, redness

Ingestion: No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects: No known significant effects or critical hazards.

Potential delayed effects: No known significant effects or critical hazards.

Long term exposure

Potential immediate effects: No known significant effects or critical hazards.

Potential delayed effects: No known significant effects or critical hazards.

Potential chronic health effects

General: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

There is no data available.

12. ECOLOGICAL INFORMATION

Toxicity:

Product/ingredient name	Result	Species	Exposure
4-(2-Nitrobutyl)morpholine	Acute EC50 352 ppb Fresh water Acute EC50 1.2 ppm Marine water Acute LC50 750 ppb Fresh water	Algae - Pseudokirchneriella subcapitata Crustaceans - Tisbe battagliai Fish - Oncorhynchus mykiss	96 hours 48 hours 96 hours

Persistence and Degradability: No data available

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: No known significant effects or critical hazards.

13. DISPOSAL CONSIDERATIONS

Waste Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION

	DOT Classification	IMDG	IATA
UN number	Not regulated	Not regulated	Not regulated
UN proper shipping name			
Transport hazard class(es)			
Packaging Group			
Environmental hazards	No	No	No
Additional information			

Special precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code: Not available

15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA 8(a) PAIR: 1-Nitropropane

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Commerce control list precursor: 2,2',2''-Nitrilotriethanol

United States inventory (TSCA 8b): All components are listed or exempted.

**Clean Air Act Section 112:
(b) Hazardous Air
Pollutants (HAPs)**

Not listed

**Clean Air Act Section 602:
Class I Substances**

Not listed

**Clean Air Act Section 602:
Class II Substances**

Not listed

**DEA List I Chemicals:
(Precursor Chemicals)**

Not listed

**DEA List II Chemicals:
(Essential Chemicals)**

Not listed

SARA 302/304:

Composition/Information on Ingredients

No products were found

SARA 304 RQ: Not applicable

SARA Hazard Categories (311/312)

Classification: Immediate (acute) health hazard

Composition/information on Ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
4-(2-Nitrobutyl)morpholine	0.1-1	No	No	No	Yes	No

State Regulations

Massachusetts: None of the components are listed

New York: None of the components are listed

New Jersey: The following components are listed: Distillates (petroleum), hydrotreated heavy naphthenic

Pennsylvania: The following components are listed: Oils, lard

California Proposition 65

No products were found.

16. OTHER INFORMATION

Key to abbreviations:

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

The information and recommendations contained within this document are believed by PetroChoice to be accurate and reliable as of the date prepared. The information and recommendations are offered for the user's consideration and analysis and in no way guarantee the chemical specifications for the specified product. It is solely the responsibility of the user to determine safe conditions for use of this product and to assume liability for any loss, damage or expense arising out of the product's improper use. The user should consider the information in this document in the context of how the selected product will be handled and used in conjunction with other products. It is the user's responsibility to determine that the product is suitable for the intended use.

Appropriate warnings and safe-handling procedures should be provided to all handlers and users. PetroChoice assumes no responsibility for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices within this document.

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