



Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Dyna-Plex 21C Draw-Tek 1040

Liquid

Product Code: 14872

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 Corrosion/Irritation – Category 1B

Serious Eye Damage/Eye Irritation – Category 1

GHS Label Elements

Hazard Pictogram:



Signal Word:

DANGER

Hazard Statement:

H314 –Causes severe skin burns and eye damage.

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. Wear eye protection or face protection. Wear protective clothing. Wash hands thoroughly after handling.
- Response:** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
- Storage:** Store locked up.
- 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 %
Poly(oxy-1,2-ethanediyl), α -(9Z)-9-octadecen-1-yl- ω -hydroxy-, phosphate	39464-69-2	5-10
Ethanolamine and triethanolamine borate	68512-53-8	1-5
2-Aminoethanol	141-43-5	1-5
Potassium hydroxide	1310-58-3	1-5

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. Continue to rinse for at least 20 minutes. Get medical attention if irritation occurs.

Inhalation

Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact

Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. 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: Causes serious eye damage.

Inhalation: May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact: Causes severe burns.

Ingestion: May cause burns to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following: pain, watering, redness

Inhalation: No known significant effects or critical hazards.

Skin contact: Adverse symptoms may include the following: pain or irritation, redness, blistering may occur

Ingestion: Adverse symptoms may include the following: stomach pains

Indication of any immediate medical attention and special treatment needed:

Notes to physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments: No specific treatment

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

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

Decomposition products may include the following materials:

Carbon dioxide

Carbon monoxide

Nitrogen oxides

Phosphorus oxides

Metal oxide/oxides

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. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe 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 a 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). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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. Remove contaminated clothing and protective equipment before entering eating areas.

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. Store locked up. 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
2-aminoethanol	ACGIH TLV (United States, 4/2014). STEL: 15 mg/m ³ 15 minutes. STEL: 6 ppm 15 minutes. TWA: 7.5 mg/m ³ 8 hours. TWA: 3 ppm 8 hours.
	NIOSH REL (United States, 10/2013). STEL: 15 mg/m ³ 15 minutes. STEL: 6 ppm 15 minutes. TWA: 8 mg/m ³ 10 hours. TWA: 3 ppm 10 hours.
	OSHA PEL (United States, 2/2013). TWA: 6 mg/m ³ 8 hours. TWA: 3 ppm 8 hours.
Potassium hydroxide	ACGIH TLV (United States, 4/2014). CEIL: 2 mg/m ³ NIOSH REL (United States, 10/2013). TWA: 2 mg/m ³ 10 hours. OSHA PEL 1989 (United States, 3/1989). CEIL: 2 mg/m ³

Appropriate engineering controls:

If user operations generate dust, fumes, gas, vapor or mist, use process enclosures local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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. 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: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

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: Yellow

Physical state: Liquid

Odor: Mild

Odor Threshold: Not available

pH: 8.5-9.5

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

Initial boiling point and boiling range: 100°C (212°F)

Flash point (Cleveland Open Cup): Not available

Evaporation rate: 1 (Water = 1)

Flammability (solid, gas): Not available

Lower/upper flammability or explosive limits: Not available

Vapor pressure: Not available

Vapor density: Not available

Relative density: 1.02

Solubility: Easily soluble in the following materials: cold water and hot water.

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

Auto-ignition Temperature: Not available

Decomposition Temperature: Not available

Viscosity: Not available

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 not occur.

Conditions to avoid: No specific data.

Incompatible materials: Highly reactive or incompatible with the following materials: moisture.
Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.

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
2-Aminoethanol	LD50 Oral	Rat	1720 mg/kg	-
Potassium hydroxide	LD50 Oral	Rat	273 mg/kg	-

Irritation/Corrosion:

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-Aminoethanol	Eyes - Severe irritant	Rabbit	-	250 µg	-
	Skin - Moderate irritant	Rabbit	-	505 mg	-
Potassium hydroxide	Eyes - Moderate irritant	Rabbit	-	24 hours 1 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Severe irritant	Guinea pig	-	24 hours 50 mg	-
	Skin - Severe irritant	Human	-	24 hours 50 mg	-

Sensitization:

There is no data available

Carcinogenicity:

Classification:

Product/ingredient name	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
2,2',2''-Nitrilotriethanol	-	3	-	-	-	-

Specific Target Organ Toxicity (single exposure):

Name	Category	Route of exposure	Target organs
2-Aminoethano	Category 3	Not applicable	Respiratory tract irritation

Specific Target Organ Toxicity (repeated exposure): No data available

Aspiration hazard: No data available

Information on Likely Routes of Exposure:

Dermal contact. Eye contact. Ingestion.

Potential acute health effects

- Eye Contact:** Causes serious eye damage.
- Inhalation:** May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin Contact:** Causes severe burns.
- Ingestion:** May cause burns to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye Contact:** Adverse symptoms may include the following: pain, watering, redness
- Inhalation:** No known significant effects or critical hazards.
- Skin Contact:** Adverse symptoms may include the following: pain or irritation, redness, blistering may occur
- Ingestion:** Adverse symptoms may include the following: stomach pains

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:** No known significant effects or critical hazards.
- 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

Route	ATE Value
Oral	21004.3 mg/kg
Dermal	87412.6 mg/kg
Inhalation (vapors)	874.1 mg/L

12. ECOLOGICAL INFORMATION

Toxicity:

Product/ingredient name	Result	Species	Exposure
2-aminoethanol	Acute EC50 80000 µg/L Fresh water	Algae - Isochrysis galbana	96 hours
	Acute LC50 >100000 µg/L Marine water	Crustaceans - Crangon crangon – Adult	48 hours
	Acute LC50 170000 µg/L Fresh water	Fish - Carassius auratus	96 hours
Potassium hydroxide	Acute LC50 80 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours

Persistence and Degradability: No data available

Bioaccumulative Potential:

Product/ingredient name	LogP _{ow}	BCF	Potential
Poly(oxy-1,2-ethanediyl), α-(9Z)-9-octadecen-1-yl-ω-hydroxy-, phosphate	7.72	-	high
2-Aminoethanol	-1.31	-	low

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: Not regulated as a dangerous good.

IMDG: Not regulated as a dangerous good.

IATA: Not regulated as a dangerous good.

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) 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 Water Act (CWA) 311: Potassium hydroxide

Clean Air Act Section 112: Not listed
(b) Hazardous Air Pollutants (HAPs)

Clean Air Act Section 602: Not listed
Class I Substances

Clean Air Act Section 602: Not listed
Class II Substances

DEA List I Chemicals: Not listed
(Precursor Chemicals)

DEA List II Chemicals: Not listed
(Essential Chemicals)

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
Poly(oxy-1,2-ethanediyl), α -(9Z)-9-octadecen-1-yl - ω -hydroxy-, phosphate	5-10	No	No	No	Yes	No
Ethanolamine and triethanolamine borate	1-5	No	No	No	Yes	No
2-Aminoethanol	1-5	No	No	No	Yes	No
Potassium hydroxide	1-5	No	No	No	Yes	No

SARA 313:

No products were found

State Regulations

- Massachusetts:** The following components are listed: 2-Aminoethanol; 2,2',2''-Nitrilotriethanol; Potassium hydroxide
- New York:** The following components are listed: Potassium hydroxide
- New Jersey:** The following components are listed: 1,2-Propylene glycol; 2-Aminoethanol; 2,2',2''-Nitrilotriethanol; Potassium hydroxide
- Pennsylvania:** The following components are listed: 1,2-Propylene glycol; 2-Aminoethanol; 2,2',2''-Nitrilotriethanol; Potassium hydroxide

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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