

# SAFETY DATA SHEET



## Dyna-Plex 21C Semi-Kut 25 BF

### Section 1. Identification

**GHS product identifier** : Dyna-Plex 21C Semi-Kut 25 BF

**Other means of identification** : Not available.

**Product type** : Liquid.

**Identified uses**

Not available.

**Supplier's details** : Miller Industrial Fluids, A PetroChoice Company  
 1751 W. Raymond Street  
 Indianapolis, IN 46221  
 Tel.: (317) 634-7300  
 Fax: (317) 636-6761  
 Email: customerservice@millerif.com  
 Web: www.petrochoice.com

**Emergency telephone number (with hours of operation)** : CHEMTREC, U.S. : 1-800-424-9300 International: +1-703-527-3887 (24/7)  
 Emergency phone: (317) 634-7300, After Hours: (CHEMTREC)  
 Emergency email: customerservice@millerif.com  
 Hours of operation: 8am – 5pm

### Section 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 1  
 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

**GHS label elements**

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : 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 or face protection. Wear protective clothing. Wash hands thoroughly after handling.

## Section 2. Hazards identification

- 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.
- Hazards not otherwise classified** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

### CAS number/other identifiers

**CAS number** : Not applicable.

**Product code** : Not available.

Ingredient name	%	CAS number
Petroleum distillates, hydrotreated heavy naphthenic	10 - 30	64742-52-5
Alkanolamide	10 - 20	Confidential
Dialkyl phosphate	1 - 5	Confidential
Monoalkyl phosphate	1 - 5	Confidential
Alcohols, C12-13, ethoxylated propoxylated	1 - 5	70750-27-5
2-Amino-2-methyl-1-propanol	5 - 10	124-68-5
Diethylene glycol	1 - 5	111-46-6
Phosphoric acid, decyl octyl ester	1 - 5	68186-45-8
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	1 - 5	4719-04-4

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.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician.
- 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.

## Section 4. First aid measures

- 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 immediate medical attention and special treatment needed, if necessary

- 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)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : In case of fire, use water spray (fog), foam, dry chemical or CO<sub>2</sub>.
- 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

**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.

## Section 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.

## Section 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.

**Conditions for safe storage, including any incompatibilities** : 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.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

<b>Ingredient name</b>	<b>Exposure limits</b>
Petroleum distillates, hydrotreated heavy naphthenic	<b>ACGIH TLV</b> TWA: 5 mg/m <sup>3</sup> 8 hours. <b>NIOSH REL</b> STEL: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>
Dialkyl phosphate	<b>ACGIH TLV</b> TWA: 5 mg/m <sup>3</sup> <b>OSHA PEL</b> TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>
2-aminoethanol	<b>ACGIH TLV</b> TWA: 7.5 mg/m <sup>3</sup> STEL: 15 mg/m <sup>3</sup> <b>NIOSH REL</b> STEL: 15 mg/m <sup>3</sup> TWA: 8 mg/m <sup>3</sup>

**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.

## Section 8. Exposure controls/personal protection

- 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.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Liquid.
- Color** : Yellow.
- Odor** : Mild.
- Odor threshold** : Not available.
- pH** : 10.5
- Melting point** : 0°C (32°F)
- Boiling point** : 100°C (212°F)
- Flash point** : Not available.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 0.97
- Solubility** : Miscible in water.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Not available.

## Section 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.

## Section 10. Stability and reactivity

**Conditions to avoid** : No specific data.

**Incompatible materials** : 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.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-Amino-2-methyl-1-propanol	LD50, Oral LD50, Dermal	Rat Rabbit	2900 mg/kg >2000 mg/kg	- -
2-Aminoethanol Alcohols, C12-13, ethoxylated propoxylated	LD50 Oral LD50 Oral	Rat Rat	7.39 g/kg >1900 mg/kg	- -
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	LC50, Inhalation dusts and mists LD50, Dermal LD50, Oral	Rat Rat Rat	0.37 mg/L >2000 mg/kg 1009 to 3950 mg/kg	4 hours - -

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-Aminoethanol	Eyes - Severe irritant Skin - Moderate irritant	Rabbit Rabbit	- -	250 µg 505 mg	- -

#### Sensitization

There is no data available.

#### Carcinogenicity

##### Classification

None of the components are listed as carcinogens according to the IARC, NTP and OSHA.

#### Specific target organ toxicity (single exposure)

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

## Section 11. Toxicological information

### Specific target organ toxicity (repeated exposure)

There is no data available.

### Aspiration hazard

Component	Classification
Petroleum distillates, hydrotreated heavy naphthenic	Aspiration Hazard, Category 1

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

### Potential acute health effects

<b>Eye contact</b>	: Causes serious eye damage.
<b>Inhalation</b>	: 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.
<b>Skin contact</b>	: Causes severe burns.
<b>Ingestion</b>	: May cause burns to mouth, throat and stomach.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	: Adverse symptoms may include the following: pain watering redness
<b>Inhalation</b>	: No known significant effects or critical hazards.
<b>Skin contact</b>	: Adverse symptoms may include the following: pain or irritation redness blistering may occur
<b>Ingestion</b>	: 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

<b>Potential immediate effects</b>	: No known significant effects or critical hazards.
<b>Potential delayed effects</b>	: No known significant effects or critical hazards.

#### Long term exposure

<b>Potential immediate effects</b>	: No known significant effects or critical hazards.
<b>Potential delayed effects</b>	: No known significant effects or critical hazards.

#### Potential chronic health effects

<b>General</b>	: No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.
<b>Fertility effects</b>	: No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates



## Section 11. Toxicological information

Route	ATE value
Oral	5752 mg/kg

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
2-Amino-2-methyl-1-propanol	Acute LC50 190 mg/L Fresh water Acute LC50 193 mg/L Fresh water	Fish - Lepomis macrochirus Invertebrate - Daphnia magna	96 hours 48 hours
2-Aminoethanol	Acute EC50 80000 µg/L Fresh water Acute LC50 >100000 µg/L Marine water Acute LC50 170000 µg/L Fresh water	Algae - Isochrysis galbana Crustaceans - Crangon crangon - Adult Fish - Carassius auratus	96 hours 48 hours 96 hours
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	Acute EC50 26.1 ppm Fresh water Acute LC50 39 ppm Fresh water Acute	Daphnia - Daphnia magna Fish - Lepomis macrochirus	48 hours 96 hours

### Persistence and degradability

No data available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
2-Aminoethanol	-1.31	-	low
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	-2	-	low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**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.

## Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

**AERG** : Not applicable.

**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 the IBC Code** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : **TSCA 4(a) final test rules:** 2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol  
**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**United States inventory (TSCA 8b):** All components are listed or exempted.

## Section 15. Regulatory information

**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 311/312

**Classification** : Immediate (acute) health hazard  
: Delayed (chronic) health hazard

#### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
2-Aminoethanol	0.1 - 1	No.	No.	No.	Yes.	No.
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl) triethanol	1 - 5	No.	No.	No.	Yes.	No.
2-Amino-2-methyl-1-propanol	5 - 10	Yes	No	No	Yes	Yes

### SARA 313

No products were found.

### State regulations

**Massachusetts** : The following components are listed: 2-Aminoethanol

**New York** : None of the components are listed.

**New Jersey** : The following components are listed: 2-Aminoethanol

**Pennsylvania** : The following components are listed: 2-Amino-2-methyl-1-propanol;  
2-Aminoethanol

### California Prop. 65

No products were found.

## Section 16. Other information

### History

**Date of issue mm/dd/yyyy** : 09/04/2015  
**Version** : 1  
**Revised Section(s)** : Not applicable.

### 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

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.