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Version 1

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product identifier****Product name** CITRI-SOLV**Recommended use of the chemical  
and restrictions on use****Product code** XP02204**Product Type** Combustible liquid  
**Synonyms** None**Supplier's details****Recommended Use** All Purpose Cleaner.  
**Uses advised against** No information available**Manufactured For:**  
Kimball Midwest  
4800 Roberts Rd.  
Columbus, OH 43228**Emergency telephone number**  
**Chemical Emergency Phone** Chemtrec 1-800-424-9300  
**Number**  
**Company Emergency Phone** 1-800-233-1294  
**Number**

## 2. HAZARDS IDENTIFICATION

### Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin Sensitization	Category 1
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Flammable Liquids	Category 4

### GHS Label elements, including precautionary statements

#### Emergency Overview

#### WARNING

##### Hazard Statements

Causes skin irritation  
Causes serious eye damage  
May cause an allergic skin reaction  
Suspected of causing cancer  
May cause respiratory irritation  
Combustible liquid



**Appearance** Clear

**Physical state** Liquid

**Odor** Citrus

#### Precautionary Statements - Prevention

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Wear protective gloves/protective clothing/eye protection/face protection  
Wash face, hands and any exposed skin thoroughly after handling  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area  
Keep away from flames and hot surfaces. -No smoking.

#### Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention  
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 doctor/physician.  
IF ON SKIN: Wash with plenty of soap and water.  
Take off contaminated clothing and wash before reuse  
If skin irritation or rash occurs: Get medical advice/attention  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Call a POISON CENTER or doctor/physician if you feel unwell  
In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction

#### Precautionary Statements - Storage

Store locked up  
Store in a well-ventilated place. Keep container tightly closed  
Keep cool.

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

None

**Other information**

- Toxic to aquatic life with long lasting effects

16% of the mixture consists of ingredient(s) of unknown toxicity

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No	Weight %*
D-LIMONENE	5989-27-5	30-40
DIBUTYLENE GLYCOL N-BUTYL ETHER	112-34-5	10-20
DIETHANOLAMINE	111-42-2	1-10

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. FIRST AID MEASURES****First aid measures for different exposure routes**

<b>General advice</b>	Avoid contact with eyes, and clothing. Avoid breathing, vapors, mist, or gas.
<b>Eye contact</b>	In the case of contact with eyes, rinse immediately with plenty of water for 15 minutes and seek medical advice.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.
<b>Inhalation</b>	Move to fresh air. If not breathing, give artificial respiration. If breathing has stopped, contact emergency medical services immediately.
<b>Ingestion</b>	Do NOT induce vomiting. Call a physician immediately. Never give anything by mouth to an unconscious person. Risk of product entering the lungs on vomiting after ingestion.

**Most important symptoms/effects, acute and delayed****Main Symptoms** May cause skin irritation. Drowsiness. Dizziness. Difficulty breathing.**Indication of immediate medical attention and special treatment needed, if necessary****Notes to physician** Treat symptomatically.**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**water fog. Dry chemical. Carbon dioxide (CO<sub>2</sub>). Cool containers / tanks with water spray.**Unsuitable Extinguishing Media** Do not use a solid water stream as it may scatter and spread fire.**Specific hazards arising from the chemical**

Flammable /Combustible liquid. Container may burst in fire.

**Explosion Data****Sensitivity to Mechanical Impact** none.**Sensitivity to Static Discharge** Yes.**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use shielding to protect fire-fighters from bursting containers.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation.

**Environmental precautions**

**Environmental precautions** Report spills as required by local and federal regulations.

**Methods and materials for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Contain liquid and collect with an inter,non-combustible material.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling** Avoid contact with eyes. Avoid breathing vapors or mists. Keep away from heat, sparks and open flame. No smoking.

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

**Technical measures/Storage conditions** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible products** Store away from strong oxidizers and acids.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters****Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
DIBUTYLENE GYCOL N-BUTYL ETHER 112-34-5	TWA: 10 ppm inhalable fraction and vapor	-	-
DIETHANOLAMINE 111-42-2	TWA: 1 mg/m <sup>3</sup> inhalable fraction and vapor Skin - potential significant contribution to overall exposure by the cutaneous route	(vacated) TWA: 3 ppm (vacated) TWA: 15 mg/m <sup>3</sup>	TWA: 3 ppm TWA: 15 mg/m <sup>3</sup>

ACGIH: (American Conference of Governmental Industrial Hygienists)

OSHA: (Occupational Safety & Health Administration)

NIOSH IDLH: Immediately Dangerous to Life or Health

**Other Exposure Guidelines** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

**Exposure controls**

**Engineering Measures** Ventilation systems. Use adequate ventilation to keep the exposure levels below the OELs.

**Individual protection measures, such as personal protective equipment**

<b>Eye/Face Protection</b>	Safety glasses with side-shields.
<b>Skin and body protection</b>	Chemical resistant apron. Protective gloves.
<b>Respiratory protection</b>	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical and chemical properties**

<b>Physical state</b>	Liquid	<b>Odor</b>	Citrus
<b>Appearance</b>	Clear	<b>Odor Threshold</b>	No information available
<b>Color</b>	clear		
<b>Property</b>	<b>Values</b>	<b>Remarks • Methods</b>	
<b>pH</b>	10.3		
<b>Melting/freezing point</b>	No information available		
<b>Boiling point/boiling range</b>	No information available		
<b>Flash Point</b>	> 43 °C / > 110 °F	Based on lowest flashpoint of the products constituent.	
<b>Evaporation rate</b>	No information available		
<b>Flammability (solid, gas)</b>	No information available		
<b>Flammability Limits in Air</b>			
upper flammability limit	No information available		
lower flammability limit	No information available		
<b>Vapor pressure</b>	No information available		
<b>Vapor density</b>	No information available		
<b>Specific Gravity</b>	0.945		
<b>Water solubility</b>	Practically insoluble		
<b>Partition coefficient: n-octanol/water</b>	No information available		
<b>Autoignition temperature</b>	No information available		
<b>Decomposition temperature</b>	No information available		
<b>Viscosity</b>	No information available		
<b>Explosive properties</b>	No information available		

**Other information**

**VOC Content(%)** 42.5

## 10. STABILITY AND REACTIVITY

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

None under normal processing.

**Conditions to Avoid**

Extremes of temperature and direct sunlight.

**Incompatible Materials**

Store away from strong oxidizers and acids.

**Hazardous Decomposition Products**

Carbon oxides.

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

<b>Product Information</b>	Product does not present an acute toxicity hazard based on known information
<b>Inhalation</b>	Exposure to high vapour concentrations may cause nervous systems effects such as headache, nausea, and dizziness.
<b>Eye contact</b>	May cause slight irritation.
<b>Skin contact</b>	Irritating to skin. Prolonged skin contact may defat the skin and produce dermatitis.
<b>Ingestion</b>	Ingestion may cause stomach discomfort.

**Component Information**

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
D-LIMONENE 5989-27-5	= 4400 mg/kg ( Rat )	> 5 g/kg ( Rabbit )	-
DIBUTYLENE GLYCOL N-BUTYL ETHER 112-34-5	= 3384 mg/kg ( Rat )	= 2700 mg/kg ( Rabbit )	-
DIETHANOLAMINE 111-42-2	= 0.62 mL/kg ( Rat )	-	-

**Information on toxicological effects**

<b>Symptoms</b>	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting . Irritating to skin. Prolonged or repeated exposure may cause dermatitis. Contact with eyes may cause irritation. Not acutely toxic. May be harmful if swallowed.
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**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Skin corrosion/irritation</b>	Irritating to skin.
<b>Eye damage/irritation</b>	Irritating to eyes.
<b>Sensitization</b>	May cause an allergic skin reaction.
<b>Germ Cell Mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	There are no known carcinogenic chemicals in this product.

Chemical Name	ACGIH	IARC	NTP	OSHA
DIETHANOLAMINE 111-42-2	-	2B	-	x

*IARC: (International Agency for Research on Cancer)**Group 2B - Possibly Carcinogenic to Humans*

<b>Reproductive toxicity</b>	The ingredients are not reproductive hazards.
<b>Specific target organ systemic toxicity (single exposure)</b>	May cause drowsiness and dizziness.
<b>Specific target organ systemic toxicity (repeated exposure)</b>	No information available.
<b>Chronic toxicity</b>	Prolonged skin contact may defat the skin and produce dermatitis.
<b>Target Organ Effects</b>	Eyes, Respiratory system, Skin, Central nervous system, Kidney, Peripheral Nervous System (PNS).
<b>Aspiration hazard</b>	No information available.

**Numerical measures of toxicity - Product Information**

**Unknown Acute Toxicity** 16% of the mixture consists of ingredient(s) of unknown toxicity  
The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 9104 mg/kg  
ATEmix (dermal) 5754 mg/kg mg/l

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
D-LIMONENE 5989-27-5	-	0.619 - 0.796 mg/L LC50 Pimephales promelas 96h flow-through 35 mg/L LC50 Oncorhynchus mykiss 96h	-	-
DIBUTYLENE GLYCOL N-BUTYL ETHER 112-34-5	100 mg/L EC50 Desmodesmus subspicatus 96h	1300 mg/L LC50 Lepomis macrochirus 96h static	-	100 mg/L EC50 Daphnia magna 48h
DIETHANOLAMINE 111-42-2	7.8 mg/L EC50 Desmodesmus subspicatus 72h 2.1 - 2.3 mg/L EC50 Pseudokirchneriella subcapitata 96h	1200 - 1580 mg/L LC50 Pimephales promelas 96h static 4460 - 4980 mg/L LC50 Pimephales promelas 96h flow-through 600 - 1000 mg/L LC50 Lepomis macrochirus 96h static	-	55 mg/L EC50 Daphnia magna 48h

### Persistence and degradability

No information available.

### Bioaccumulation

No information available.

Chemical Name	log Pow
DIETHANOLAMINE 111-42-2	-2.18

### Other adverse effects

No information available

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment

**Waste Disposal Methods** Dispose of in accordance with federal, state, and local regulations.

**Contaminated packaging** Do not re-use empty containers.

## 14. TRANSPORT INFORMATION

**DOT Ground** UN2319, TERPENE HYDROCARBONS, N.O.S., 3, PGIII

## 15. REGULATORY INFORMATION

### International Inventories

Chemical Name	TSCA	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
D-LIMONENE	X	X	X	X	X	X	X	X
DIBUTYLENE GYCOL N-BUTYL ETHER	X	X	X	X	X	X	X	X
DIETHANOLAMINE	X	X	X	X	X	X	X	X

**Legend:**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

CHINA - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %*	SARA 313 - Threshold Values %
DIBUTYLENE GYCOL N-BUTYL ETHER - 112-34-5	112-34-5	10-20	1.0
DIETHANOLAMINE - 111-42-2	111-42-2	1-10	1.0

**SARA 311/312 Hazard Categories**

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	no
Reactive Hazard	no

**Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
DIETHANOLAMINE 111-42-2	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ

**U.S. State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
DIETHANOLAMINE - 111-42-2	Carcinogen

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
DIBUTYLENE GYCOL N-BUTYL ETHER 112-34-5	X		X



DIETHANOLAMINE 111-42-2	X	X	X
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EPA Pesticide Registration Number Not applicable

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

<b>16. OTHER INFORMATION</b>
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<u>NFPA</u>	Health Hazard 2	Flammability 2	Instability 0	Physical and chemical hazards -
<u>HMIS</u>	Health Hazard 2	Flammability 2	Physical Hazard 0	Personal protection B

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No information available

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet