

Skin Contact:

Remove contaminated clothes and rinse skin thoroughly with water.

Get medical attention if any discomfort continues.

Eye Contact:

Promptly wash eyes with plenty of water while lifting the eye lids.

Make sure to remove any contact lenses from the eyes before rinsing,

Continue to rinse for at least 15 min.

Get medical attention if any discomfort continues.

NOTE TO PHYSICIAN:

Treat symptomatically and supportively.

Section 5: Fire-fighting measures

Conditions of flammability:

Not flammable or combustible.

Extinguishing Media:

Extinguish with foam, carbon dioxide, dry powder or water fog.

Do not use water jet as an extinguisher, as this will spread the fire.

Special protective equip.:

Wear a self-contained breathing apparatus MSHA/NIOSH (approved or equivalent), and

full protective gear.

Hazardous combustion products:

Hydrogen chloride, Chlorine, Phosgene, Carbon monoxide, Carbon Dioxide.

Special Information:

Vapors can travel to a source of ignition and back.

Containers may explode in the heat of a fire.

Section 6: Accidental release measures

Personal precautions:

Wear personal protection equipment.

Evacuate surrounding areas.

Emergency procedures:

Remove all sources of ignition.

Provide ventilation.

Environmental precautions:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains,

Discharge into the environment must be avoided.

Methods of containment/cleanup:

Absorb spill with inert material, (e.g., vermiculite, dry sand or earth), then place into a

chemical waste container.

Section 7: Handling and storage

Handling:

Do not use in confined spaces without adequate ventilation and/or respirator.

Do not eat, drink or smoke when using product. Do not ingest.

Eliminate all sources of ignition.

Handle product only in closed system or provide adequate exhaust ventilation at machinery

Avoid inhalation of vapors/spray and contact with skin and eyes.

Container must be kept tightly closed.

Provide good ventilation.

Storage:

Keep away from heat, sparks, open flame, direct sunlight.

Store in tightly closed original container in a dry, cool and well-ventilated place.

Do NOT use storage tank made of:

Aluminum, aluminum alloy, or zinc

May attack some plastics, rubber and coatings.

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Section 8: Exposure controls/ personal protection

Exposure Limits:

Regulator:

Test:

Allowance:

150 ppm 820 mg/m³

Workplace Exposure Limit (WEL)
Workplace Exposure Limit (WEL)

STEL TWA

100 ppm

550 mg/m³

Engineering Controls:

Use adequate ventilation to keep airborne concentrations low.

An emergency eye wash/shower must be readily accessible to the work area.

Personal Protective Equipment:

Personal Respirators:

Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149.

Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Skin Protection:

Wear appropriate protective gloves and clothing to prevent skin exposure.

Eye Protection:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face

protection regulations in 29 CFR 1910.133 or European Standard EN166.

Section 9: Physical and chemical properties

Appearance

Physical State:

Liquid

Color:

Clear, colorless

Odor:

Chlorinated hydrocarbons

Odor Perception Threshold:

No data available

nH·

No data available

Specific Temperatures:

Freezing/Melting Point:

-84.8°C

-121°F

Boiling Point:

87.760 mmHg No data available.

Decomposition temperature:

Flammability Characteristics:

Does Not Flash

Auto-ignition Temperature:

410°C 770°F

Explosivity Characteristics:

Lower (LEL):

Flash Point:

8% (V)

Upper (UEL):

44.8% (V)

Vapor Pressure:

9.9 kPa @ 25°C

Density:

Vapor Density (air-1):

4.53

Relative Density (water=1):

1.47

Solubility:

In Water:

Insoluble in water.

Octanol/water Partition Coefficient:

log Pow: 2.53

Complementary Data:

Molecular Weight:

No data available

Evaporation Rate:

No data available

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Optional Data:

Viscosity:

0.58 mPas @ 20 °C

Section 10: Stability and reactivity

Stability:

Stable at room temperature and under normal conditions.

Hazardous Reactions:

Will not polymerize.

Conditions to Avoid:

Incompatible materials, ignition sources, and high temperatures/direct sunlight.

Incompatibilities:

Strong alkalis. Reaction with strong alkali metal hydroxides will form dichloroacetylene which can

spontaneously ignite in air

Strong oxidizing substances, amines.

Avoid contact with metals such as: zinc powders, aluminum powders, magnesium powders, potassium,

sodium. Avoid prolonged contact or storage with aluminum or its alloys

Hazardous Decomposition Products:

Toxic gases of hydrogen chloride, chlorine, phosgene, carbon monoxide, carbon dioxide.

Section 11: Toxicological information

Potential health effects:

Inhalation:

Vapors may cause drowsiness and dizziness.

In case of overexposure, organic solvents may depress the central nervous system causing dizziness and

intoxication, and at very high concentrations unconsciousness and death.

Skin Contact:

Skin irritation. May cause an allergic skin reaction

Prolonged contact may cause redness, irritation and dry skin.

Eye Contact:

May cause temporary eye irritation.

Ingestion:

No specific symptoms noted.

Numerical measures of Toxicity -

Acute Toxicity:		Test	<u>Subject</u>	<u>Value</u>	
Inhalation		LC 50	Rat	12,500 ppm	(4 hours)
Oral		LD 50	Rat	5,400 mg/kg	
Dermal		LD 50	Rabbit	>2,000 mg/kg	
Additional Information:	RTECS:	KX4550000			

Section 12: Ecological information						
Eco toxicity:	<u>Test</u>	Subject	<u>Value</u>			
Fish:	LC 50	Limanda	16 mg/L	(96 hours)		
Aquatic invertebrates:	EC 50	Daphnia magna	20.8 mg/l	(48 hours)		
Aquatic plants:	EC 50	Chlamydomonas reinhardtii	36.5 mg/l	(72 hours)		
Microorganisms:	EC 50	Activated sludge	260 mg/l	(3 hours)		
Persistence and degradability:		The product is not readily biodegradable.	2.4 Degrada	tion (%): 14 days		
Bio accumulative potentia	al:	Bioconcentration potential is low.	BCF < 100			
Mobility in soil:		Potential for mobility in soil is very high	Soil Koc > 4	41		

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Sectional 3: Disposal considerations

Product:

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

Disposal:

Dispose of according to Federal, State, and Local Regulations

Section 14: Transport information

The information in this section is for reference only and should not take the place of a bill of lading specific to an order.

UN number:

UN 1710

UN proper shipping name:

Trichloroethylene

Transport hazard class:

6.1

Packing group number:

III

Marine Pollutant:

No

Labels & Placards:

TOXIC

EMS-No

F-A, S-A

RQ:

100 lbs.

Section 15: Regulatory information

US FEDERAL

TSCA:

CAS# 79-01-6 is listed on the TSCA inventory.

Section 16 - Other Information

SDS Creation Date:

3/11/2013

Revision date:

3/10/2015

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall AllChem be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if AllChem has been advised of the possibility of such damages.



MATERIAL SAFETY DATA SHEET

AMOÇO ESKAR® WAX R-40

MSDS No. 00607000 ENGLISH

1.0 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: AMOCO ESKAR® WAX R-40

MANUFACTURER/SUPPLIER: Amoco Oil Company 200 East Randolph Drive Chicago, Illinois 60601 U.S.A. EMERGENCY HEALTH INFORMATION:
1 (800) 447-8735
EMERGENCY SPILL INFORMATION:
1 (800) 424-9300 CHEMTREC (USA)
OTHER PRODUCT SAFETY INFORMATION:
(312) 856-3907

2.0 COMPOSITION/UNFORMATION ON INGREDIENTS

Component

CAS#

Range % by Wt.

Refined paraffin wax

64742-51-4

100

(See Section 8.0, "Exposure Controls/Personal Protection", for exposure guidelines)

3.0 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: This product has been evaluated and does not require any hazard warning on thelabel under OSHA criteria.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: No significant health hazards identified.

SKIN CONTACT: No significant health hazards identified.

INHALATION: No significant health hazards identified.

INGESTION: No significant health hazards identified.

HMIS CODE: (Health:0) (Flammability:1) (Reactivity:0)

NFPA CODE: -(Health:0) (Flammability:1) (Reactivity:0)

4.0 FIRST AID MEASURES

EYE: Flush eyes with plenty of water.

SKIN: None required.

INHALATION: If adverse effects occur, remove to uncontaminated area.

INGESTION: If a large amount is swallowed, get medical attention.

Page 2 of 6

5.0 FIRE FIGHTING MEASURES

FLASHPOINT: 420°F(216°C) (Cleveland open cup)

UEL: Not determined.

LEL: Not determined.

AUTOIGNITION TEMPERATURE: Not determined.

FLAMMABILITY CLASSIFICATION: Not Flammable.

EXTINGUISHING MEDIA: Agents approved for Class B hazards (e.g., dry chemical, carbon dioxide, foam, steam) or water fog.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None identified.

FIRE-FIGHTING EQUIPMENT: Firefighters should wear full bunker gear, including a positive pressure self-contained breathing apparatus.

HAZARDOUS COMBUSTION PRODUCTS: Incomplete burning can produce carbon monoxide and/or carbon dioxide and other harmful products.

6.0 ACCIDENTAL RELEASE MEASURES

Contain and remove by mechanical means.

7.0 HANDLING AND STORAGE

HANDLING: No special requirements.

STORAGE: Store in coot, dry, well-ventilated area.

8.0 EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE: None required; however, use of eye protection is good industrial practice.

SKIN: None required; however, use of protective gloves/clothing is good industrial practice.

INHALATION: None required; however, use of adequate ventilation is good industrial practice.

ENGINEERING CONTROLS: Control airborne concentrations below the exposure guidelines.

EXPOSURE GUIDELINES:

Component CAS#

Exposure Limits

Refined paraffin wax

64742-51-4

QSHA PEL: 2 mg/m³ (fume) (89); Not established.

(71)

ACGIH TLV-TWA: 2 mg/m3

Page 3 of 6

9.0 CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE AND ODOR: Wax. White.

H: Not determined.

VAPOR PRESSURE: Not determined.

VAPOR DENSITY: Not determined.

BOILING POINT: Not determined.

MELTING POINT: 136°F(58°C)

SOLUBILITY IN WATER: Negligible, below 0.1%.

SPECIFIC GRAVITY (WATER = 1): 0.84

10.0 STABILITY AND REACTIVITY

STABILITY: Stable.

CONDITIONS FO AVOID: None identified.

MATERIALS TO AVOID: None identified.

HAZARDOUS DECOMPOSITION: None identified.

HAZARDOUS POLYMERIZATION: Will not occur.

11.0 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA:

EYE IRRITATION: Testing not conducted. See Other Toxicity Data.

SKIN IRRITATION: Testing not conducted. See Other Toxicity Data.

DERMAL LD50: Testing not conducted. See Other Toxicity Data:

ORAL LD50: Testing not conducted. See Other Toxicity Data.

INHALATION LC50: Testing not conducted. See Other Toxicity Data.

OTHER TOXICITY DATA:

Specific toxicity tests have not been conducted on this product. Our frazard evaluation is based on information from similar products, the ingredients, technical literature, and/or professional experience.

A paraffin wax was not an irritant to the eyes or skin (MAX PEIS: 2.00/110 at 24 hrs. and PDIS: 0.00/8.00). It was nontoxic by oral, dermal and inhalation routes of exposure. The oral LD50 was greater than 2000 mg/kg and the acute oral LD50 was greater than 4000 mg/kg. An acute inhalation study of paraffin wax fumes showed no evidence of sensory irritation.

No adverse effects were observed in rats exposed to paraffin wax fumes at a concentration of 52 mg/m3, 6 hours per day for four weeks.

Paraffin waxes are recognized as being nontoxic by ACGIH. The FLV for paraffin wax lumes was established to maintain good housekeeping conditions and to control the production of possible disagreeable odors when heated.

Page 4 of 6

No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or the International Agency for Research on Cancer (IARC). No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program (NTP) or the U.S. Occupational Safety and Health Act (OSHA).

12.0 ECOLOGICAL INFORMATION

Ecological testing has not been conducted on this product.

13.0 DISPOSAL INFORMATION

Enclosed-controlled incineration or permitted landfill unless directed otherwise by applicable ordinances.

14.0 TRANSPORTATION INFORMATION

U.S. DEPT OF TRANSPORTATION

Shipping Name

Not Regulated

INTERNATIONAL INFORMATION:

Sea (IMO/IMDG)

Shipping Name

Not determined.

. . .

Air (ICAO/IATA)

Shipping Name

Not determined.

European Road/Rail (ADR/RID)

Shipping Name

Not determined.

Canadian Transportation of Dangerous Goods

Shipping Name

Not Regulated

15.0 REGULATORY INFORMATION

CERCLA SECTIONS 102A/103 HAZARDOUS SUBSTANCES (40 CFR PART 302.4): This product is not reportable under 40 CFR Part 302.4:

SARA TITLE HE SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR PART 355): This product is not regulated under Section 302 of SARA and 40 CFR Part 355.

SARA TITLE III SECTIONS 311/312 HAZARDOUS CATEGORIZATION (40 GFR PART 370). This product is not regulated under SARA Title III Section 311/312.

SARA TITLE III SECTION 313 (40 CER PART 372): This product is not regulated under Section 313 of SARA and 40 CFR Part 372.

U.S. INVENTORY (ESCA): Listed on inventory.

OSHA HAZARD COMMUNICATION STANDARD: Listed by ACGIH. Listed by OSHA.

WHMIS CONTROLLED PRODUCT CLASSIFICATION: Not a Controlled Product under Canada's Workplace
Hazardous Material Information System.

EC INVENTORY (EINECS/ELINCS): Not determined.

JAPAN INVENTORY (MITI): Not determined.

AUSTRALIA INVENTORY (AICS): Not determined.

KOREA INVENTORY (ECL): Not determined.

- CANADA INVENTORY (DSL): All of the components of this product are listed on the DSL.
- | PHILIPPINE INVENTORY (PICCS): Not determined.

FOOD CONTACT STATUS

FDA: This product is approved for use by the FDA under the following sections of 21 CFR:

Part 172.886 as a direct, multipurpose food additive used in or on food in accordance with the specifications of this subpart.

Part 178.3710 as a release agent in petroleum wax used as a component of nonfood-articles subject to the provisions of this subpart.

Mar 21.02 10:34a

AMOCO ESKAR® WAX R-40 MSDS No. 00607000

Page 6 of 6

16.0 OTHER INFORMATION

Prepared by:

Environment, Health and Safety Department

Issued: March 06, 1995 Supersedes: April 13, 1989

Military Indicated that I have

This material Safety Data Sheet conforms to the requirements of ANSI Z400.1.

This material safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in this data sheet which we received from sources outside our company. We believe that information to be correct but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either express or implied:



SAFETY DATA SHEET

Revision Date 13-October-2014

Version 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name

Foremost 1813-ES Citri-Kleen

NA1993

UN/ID No

Product Code

1813-ES

Recommended Use of the Chemical and Restrictions on Use

Recommended Use

Industrial cleaner.

Details of the Supplier of the Safety Data Sheet

Supplier Address

Delta Foremost Chemical Corporation

3915 Air Park St.

Memphis, Tennessee 38118

Emergency Telephone Number

Company Phone Number Emergency Telephone (901) 363-4340

INFOTRAC 1-352-323-3500 (International)

1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Classification

Skin Corrosion/Irritation	Category 2
Aspiration toxicity	Category 1
Flammable liquids	Category 3

Signal Word DANGER

Hazard Statements

Causes skin irritation
May be fatal if swallowed and enters airways
Flammable liquid and vapor



Appearance Yellow Liquid

Physical State Liquid

Odor Citrus

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves/protective clothing/eye protection/face protection Keep away from heat/sparks/open flames/hot surfaces. — No smoking Keep container tightly closed Ground/bond container and receiving equipment

Use explosion-proof equipment

Use only non-sparking tools

Take precautionary measures against static discharge

Precautionary Statements - Response

If skin irritation occurs: Get medical advice/attention

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Do NOT induce vomiting

In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)

May be harmful if swallowed May be harmful in contact with skin

Other Hazards

Very toxic to aquatic life with long lasting effects Very toxic to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
d-Limonene	5989-27-5	Proprietary
Odorless Mineral Spirits	68551-17-7	Proprietary

4. FIRST AID MEASURES

Firet Airl Maseurae

General Advice Provide this SDS to medical personnel for treatment.

Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and

continue flushing for at least 15 minutes. Get immediate medical advice/attention.

Skin Contact Wash affected areas with copious amount of soap and water. If there is dryness and skin

irritation, use a skin cream or Vaseline on skin. If irritation persists, see physician.

Inhalation Remove exposed individual(s) to fresh air for 20 minutes. Consult a physician / poison

center if individual's condition declines or if symptoms persist.

Ingestion

Do not induce vomiting unless directed by medical personnel. If vomiting occurs, lean patient forward to maintain an open airway & prevent aspiration. Get immediate medical attention.

Most Important Symptoms and Effects, both Acute and Delayed

Symptoms

May cause skin and eye irritation. Direct contact with eyes may cause temporary irritation. May cause nausea, vomiting, stomach ache, and diarrhea. May cause respiratory irritation,

Indication of any Immediate Medical Attention and Special Treatment Needed

Note to Physicians

Aspiration into the lungs may occur during ingestion or vomiting, causing lung damage or even death due to chemical pneumonia.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam, carbon dioxide or dry chemical extinguisher. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Water.

Specific Hazards Arising from the Chemical

Closed containers may explode due to buildup of pressure when exposed to extreme heat.

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. Water may be used to cool closed containers to prevent pressure buildups and possible ignition or explosion when exposed to extreme heat.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions

Wear protective clothing as described in Section 8 of this safety data sheet. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Methods and Material for Containment and Cleaning Up

Methods for Containment

Prevent further leakage or spillage if safe to do so. Absorb spill with inert material (e.g. dry sand or earth).

Methods for Cleaning Up

Use clean non-sparking tools to collect absorbed material. Sweep up absorbed material and shovel into suitable containers for disposal. Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations. For waste disposal, see section 13 of the SDS.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Advice on Safe Handling

Handle in accordance with good industrial hygiene and safety practice. Wash face, hands, and any exposed skin thoroughly after handling. Use personal protection recommended in Section 8. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Use spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharges. Keep container closed when not in use.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions

Keep container tightly closed and store in a cool, dry and well-ventilated place. Store

locked up.

Incompatible Materials

Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

The following information is given as general guidance.

Appropriate Engineering Controls

Engineering Controls

Good general mechanical ventilation. Local exhaust recommended.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection

Goggles or face shield.

Skin and Body Protection

Wear rubber or neoprene gloves, Rubber apron.

Respiratory Protection

For normal use, none necessary.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State

Liquid

Appearance

Yellow Liquid

Odor

Citrus

Color

Yellow

Odor Threshold

Remarks . Method

Not determined

Property

Not determined

176 °C / 348.8 °F

Tag Closed Cup

(1=Water)

Flash Point **Evaporation Rate**

Flammability (Solid, Gas)

Upper Flammability Limits

Melting Point/Freezing Point

Boiling Point/Boiling Range

Lower Flammability Limit

Vapor Pressure

Vapor Density

Specific Gravity Water Solubility

Solubility in Other Solvents **Partition Coefficient**

Autoignition Temperature Decomposition Temperature

Kinematic Viscosity Dynamic Viscosity **Explosive Properties**

Oxidizing Properties

Values

Not applicable

43.33-46.11 °C / 110-115 °F

Not applicable Not determined

Not established Not established

Not established Not established

0.860

Emulsifier Not determined

Not determined Not determined

Not determined Not determined

Not determined Not determined Not determined

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Foremost 1813-ES Citri-Kleen

Revision Date 13-October-2014

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to Avoid

Heat, flames and sparks.

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

Eye Contact

Direct contact with eyes may cause temporary irritation.

Skin Contact

Causes skin irritation. May be harmful in contact with skin.

Inhalation

May cause irritation of respiratory tract.

Ingestion

May be harmful if swallowed. Potential for aspiration if swallowed.

Component Information

Chemical Name	Oral LD50	Dermai LD50	Inhalation LC50
d-Limonene 5989-27-5	= 4400 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	:•:

Information on Physical, Chemical and Toxicological Effects

Symptoms

Please see section 4 of this SDS for symptoms.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

Chemical Name	ACGIH	IARC	NTP	OSHA
d-Limonene	20100001-0001010-0010001011110-0010	Group 3		X
5989-27-5				

IARC (International Agency for Research on Cancer)

Group 3 IARC components are "not classifiable as human carcinogens"

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Aspiration Hazard

May be fatal if swallowed and enters airways.

Numerical Measures of Toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Persistence and Degradability

Not determined

Bioaccumulation

Not determined

Mobility

Not determined

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes

Disposal should be in accordance with applicable regional, national and local laws and

regulations.

Contaminated Packaging

Disposal should be in accordance with applicable regional, national and local laws and

regulations.

Chemical Name	California Hazardous Waste Status
d-Limonene	Toxic
5989-27-5	

14. TRANSPORT INFORMATION

Note

Please see current shipping paper for most up to date shipping information, including

exemptions and special circumstances.

DOT

UN/ID No

NA1993

Proper Shipping Name

Combustible liquid, n.o.s. (petroleum distillates)

Hazard Class

Combustible liquid

Packing Group

111

IATA

UN/ID No

UN1993

Proper Shipping Name

Combustible liquid, n.o.s. (petroleum distillates)

Hazard Class
Packing Group

3 III

IMDG UN/ID No

UN1993

Foremost 1813-ES Citri-Kleen

Proper Shipping Name

Combustible liquid, n.o.s. (petroleum distillates)

15. REGULATORY INFORMATION

Hazard Class
Packing Group

3 III

STATEMENT OF STREET

International Inventories
Not Determined

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 Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

SARA 313

Not determined

US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts
Odorless Mineral Spirits	X	X
68551-17-7		

16. OTHER INFORMATION

<u>NFPA</u>

Health Hazards

Flammability

Instability

Special Hazards

HMIS

Health Hazards

Flammability

Physical Hazards

Not determined Personal Protection

2

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Not determined

Revision Date Revision Note 13-October-2014 New format

Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet

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acc. EC 1907/2006 (REACH-VO)

version: 08/08 E-DM-BOdate of last change: 05.03.2010



page 1 / 5

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY

Trade name:

Paraffin/ stearin 80/20

Art. 12100

Industrial sector:

Chemical industry, candle industry, basic material

print date: 05.03.2010

Use of the substance/preparation:

Product is defined as raw material for production or

for further processing.

Company : Street : EXAGON AG Räffelstrasse 10

Street :

CH-8045 Zurich

Phone:

+41 (0)44 430 36 76

Fax:

+41 (0)44 430 36 66

e-mail:

info@exagon.ch

2. HAZARDS IDENTIFICATION

2.1 Classification/ Hazards characteristics:

This product does not require labelling in sense of the preparation guideline 67/548/EWG and 1999/45/EG

2.2 Additional safety information for humans and the environment:

Risk of skin burns caused by hot melt.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/composition related Information

Chemical characterisation:

Compound based on paraffin and stearic acid

64742-51-4, 67701-03-5

EINECS No:

CAS No:

265-154-5, 266-928-5

Hazard ingredients:

Chemical name:

попе

Cnemical nar

CAS No:

EINECS No.:

Percent %:

Classification /labelling:

4. FIRST AID MEASURES

General information:

Take away contaminated clothes.

acc. EC 1907/2006 (REACH-VO)

version: 08/08 E-DM-BOdate of last change: 05.03.2010

WACHS, DOCHT UND GERÄLE
EXAGON
STIFENGUSS PRODUKTE

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In case of eye contact:

In case of skin contact:

In case of contact with eyes, rinse immediately tho-

print date: 05.03.2010

roughly with plenty of water.

In case of eye irritation consult an opthalmologist

In case of contact with molten product, cool skin area rapidly with cold water. Do not peel solidified product off

the skin.

In case of inhalation

Move affected person into fresh air, keep warm and allow to rest. In case of respiratory tract irritation,

consult a physican.

In case of ingestion:

Rinse mouth thoroughly with water.

Information to physician:

No data available.

5. FIRE- FIGHTING MEASURES

Suitable extinguishing media:

sand, foam ,dry powder, carbon dioxide (CO2)

Extinguishing media which must not to be used

for safety reasons:

water

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases: In case of fire may be liberated: Carbon dioxid, Nitro oxides (NOx), soot and other organic products.

Special protective equipment for fire fighters:

In case of fire: Wear self-contained breathing apparatus.

Additional information:

Use water spray to protect personnel and to cool endangered containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Wear breathing apparatus if exposed to va-

pour/dusts/aerosols.

Environmental precautions:

Do not allow to drains, water courses or soil.

Cleaning procedures:

Allow product to cool down and solidify. Collect in suitable containers for recycling or disposal. Please

look disposal considerations.

7. HANDLING AND STORING

Safe handling advice:

Avoid forming of wax vapor/fume. If this is not possible provide proper air ventilation; if necessary use suction

plant.

Advice on protection against fire and explosion:

Steps against electrostatic charges should be provided. Product may only form ignitable compositions or burn, if

heated up to temperatures higher than flashpoint.

Additionally information

Requirements for storage areas and containers:

Only use containers specially approved for the substance/product. Keep storage place cool and dry.

Hints on storage assembly

Materials to avoid:

Strong oxidizing agents.

Further information on storage conditions:

Keep in cool, well ventilated place.

acc. EC 1907/2006 (REACH-VO)

version: 08/08 E-DM-BOdate of last change: 05.03.2010



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Fire class:

Storage class VCI:

Typical applications:

В

11 (burnable solids)

Observe technical data sheet.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

National occupational exposure limit value: European occupational exposure limit value:

Engineering measures:

not applicable

not applicable

In case of thermal processing, provide for extraction of

print date: 05.03.2010

vapours or adequate ventilation.

Personal protective equipment

Respiratory protection:

Respiratory protection is necessary at aerosol or mist

formation: use mask offliter types A2, A2/P2 or ABEK.

Hand protection:

Hand protection in accordance to other used chemi-cals.

Hand protection is recommended. Use protective skin cream regulatory.

Eye protection:

Body protection:

Eye glasses with side protection.

If contact with hot product is possible, please wear heat resistant and flame retardant protective clothing.

Hygiene measures:

Usual precautions for proper handling of chemicals should be observed. After work, before meal breaks, clean wax soiled skin by water and emollient cleaning agent/soap.

Avoid Inhalation of wax fume.

9. PHYSICAL AND CHEMICAL PROPERTIES

solid

Colour:

white to off-white

low typical Odour:

Important health, safety and environmental information pH-value:

not applicable

Drop point (DIN ISO 2176):

40 - 70 °C

Boiling temperature / boiling range:

Vapour pressure:

undetermined

Densitiy at 20°C (DIN 53217):

undetermined

Solubility in Water at 20°C:

approx. 0,92 g/cm3

insoluble

Flash point: (DIN ISO 2592):

> 100 °C

Ignition temperature:

not available

10. STABILITY AND REACTIVITY

Conditions to avoid:

No hazardous reactions known.

Materials to avoid:

Reactions with strong oxidizing agents.

Hazard decomposition products:

No hazardous decompositons products known.

acc. EC 1907/2006 (REACH-VO)

version: 08/08 E-DM-BOdate of last change: 05.03.2010



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11. TOXICOLOGICAL INFORMATION

Non-human toxicological data

Acute orale toxicity:

Additional information:

LD50 (rat) > 2000 mg/kg

Data obtained by analogy e.g. QSAR.

print date: 05.03.2010

12. ECOLOGICAL INFORMATION

Ecotoxicity:

No data available.

Behaviour in environmental compartments:

Technically correct releases of minimal concentrations to adapted biological sewage plant, will not disturb the biodegradability of activated sludge.

Do not allow uncontrolled discharge of product into

the environment.

13. DISPOSAL CONSIDERATIONS

Product:

With respect to local regulations, e.g. dispose of to suitable waste incineration plant.

Waste designations in accordance with EWC

Waste key number:

Further information:

No waste key number as per the European Waste types List can be assigned to this product, since such classification is based on the (as yet undetermined) use to which the product is put by the consumer. The waste key number must be determined as per the European Waste Types List (decision on EU Waste Types List 2000/532/EC) in cooperation with the disposal firm/producing firm/officical authority.

Empty packages:

Non-contaminated packages may be recycled.

Packing which cannot be properly cleaned must be

disposed of.

14. TRANSPORT INFORMATION

ADR/RID:

non-restricted

GGVS/GGVE .

IATA-TI:

--

IATA-DGR:

_

IMDG:

--

GGVSee:

__

15. REGULATORY INFORMATION

Labelling in accordance to EC-directive:

The product does not require a hazard warning label in accordance to 67/548/EWG and 1999/45/EC.

acc. EC 1907/2006 (REACH-VO)

version: 08/08 E-DM-BOdate of last change: 05.03.2010



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National regulation:

Please check local regulation and contact administra-tion.

print date: 05.03.2010

Water hazard class

Classification:

n.w. no water endangering; in accor. to VwVwS

16. OTHER INFORMATION

Recommended restrictions on use:

Not heated up to temperatures higher than flash point.

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

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	20		×	



Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: GHS 82658

* * * Section 1 - Identification * * *

Product Identifier

SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

Product Code

None.

Synonyms

Safety-Kleen Premium Gold Solvent; Safety-Kleen Continued Use Product Solvent (CUP); High Flash Degreasing Solvent; Parts Washer Solvent; Petroleum Distillates; Petroleum Naphtha; Naphtha, Solvent; Mineral Spirits

Phone: 1-800-669-5740

Emergency # 1-800-468-1760

Recommended Use

Cleaning and degreasing metal parts. If this product is used in combination with other products, refer to the Safety Data Sheets for those products.

Restrictions on Use

None known.

Manufacturer Information

Safety-Kleen Systems, Inc.

2600 North Central Expressway

Suite 400

Richardson, TX 75080

www.safety-kleen.com

sue Date

September 2, 2014

Supersedes Issue Date

November 8, 2012

Original Issue Date

January 26, 1995

* * * Section 2 - Hazard(s) Identification * * *

Classification in Accordance with 29 CFR 1910.1200.

Flammable Liquids, Category 4

Specific Target Organ Toxicity - Single Exposure, Category 3 (central nervous system)

Aspiration Hazard, Category 1

GHS LABEL ELEMENTS

Symbol(s)





Signal Word

DANGER!

Hazard Statement(s)

Combustible liquid

May cause drowsiness and dizziness

May be fatal if swallowed and enters airways

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: GHS 82658

Precautionary Statement(s)

Prevention

Keep away from flames and hot surfaces. - No smoking. Wear protective gloves and eye/face protection. Avoid breathing vapor or mist. Use only outdoors or in a well-ventilated area.

Response

In case of fire: Use Class B/C or Class A/B/C fire extinguisher, carbon dioxide, regular foam, dry chemical, water spray, or water fog for extinction. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

Storage

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

Disposal

Dispose of in accordance with all applicable federal, state and local regulations.

Hazard(s) Not Otherwise Classified

None known.

* * * Section 3 - C	omposition / Information on Ingredients * * *	

CAS	Component	Percent
64742-47-8	Distillates (petroleum), hydrotreated light	100

* * * Section 4 - First Aid Measures * * *

Description of Necessary Measures

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin

IF ON SKIN: Wash with plenty of soap and water. Remove contaminated clothing and wash before reuse. Get medical attention if irritation develops or persists.

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops or persists.

Ingestion

IF SWALLOWED: Aspiration hazard. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Call a poison control center or doctor immediately for treatment advice.

Most Important Symptoms/Effects

Acute

Central nervous system depression

Delayed

Central nervous system damage

Indication of Immediate Medical Attention and Special Treatment Needed, If Needed

IF exposed: Call a POISON CENTER or doctor/physician. Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-468-1760 for additional information.

* * * Section 5 - Fire-Fighting Measures * * *

Suitable Extinguishing Media

Class B/C or Class A/B/C fire extinguisher, carbon dioxide, regular foam, regular dry chemical, water spray, water fog.

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: GHS 82658

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Specific Hazards Arising from the Chemical

Combustible liquid and vapor. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Run-off to sewer may create a fire hazard. Heated containers may rupture or be thrown into the air. Empty containers may retain product residue including flammable/explosive vapors. Product may be sensitive to static discharge, which could result in fire or explosion.

Hazardous Combustion Products

Decomposition and combustion materials may be toxic - Burning may produce carbon monoxide and unidentified organic compounds.

Special Protective Equipment and Precautions for Firefighters

A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

Fire Fighting Measures

Keep away from sources of ignition - No smoking. Keep unnecessary people away, isolate hazard area and deny entry. Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Stay away from the ends of tanks. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile). Stay upwind and keep out of low areas. Dike for later disposal.

NFPA Ratings: Health: 1 Fire: 2 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

* * * Section 6 - Accidental Release Measures * * *

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment. See Section 8 – Exposure Controls/Personal Protection. Avoid release to the environment.

Methods and Materials for Containment and Clean Up

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in Section 8 – Exposure Controls/Personal Protection. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal. Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

There may be specific regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see Section 15 – Regulatory Information.

* * * Section 7 - Handling and Storage * * *

Precautions for Safe Handling

Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. When transferring product, trucks and tank cars should be grounded and bonded. Do not breathe vapor or mist. Use in a well-ventilated area. Avoid contact with eyes, skin, clothing, and shoes. Do not smoke while using this product.

Conditions for Safe Storage, Including Any Incompatibilities

Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Keep container tightly closed. Keep cool. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Empty product containers may retain product residue and can be dangerous. Store in a well-ventilated place. See Section 14 – Transportation Information for Packing Group information.

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: GHS 82658

Incompatibilities

Strong oxidizing materials.

* * * Section 8 - Exposure Controls / Personal Protection * * *

Component Exposure Limits

Distillates (petroleum), hydrotreated light (64742-47-8)

ACGIH: 100 ppm TWA (related to Stoddard solvent)

OSHA Final: 500 ppm TWA; 2900 mg/m3 TWA (related to Stoddard solvent)
OSHA Vacated: 100 ppm TWA; 525 mg/m3 TWA (related to Stoddard solvent)

NIOSH: 350 mg/m3 TWA (related to Stoddard solvent)

1800 mg/m3 Ceiling (15 min, related to Stoddard solvent)

Appropriate Engineering Controls

Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits. Where explosive mixtures may be present, equipment safe for such locations should be used.

Individual Protective Measures, such as Personal Protective Equipment

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: safety glasses, gloves, lab coat or apron.

Eyes/Face Protection

Safety glasses with side shields should be worn at a minimum. Additional protection such as goggles, face shields, or respirators may be needed depending upon anticipated use and concentrations of mists or vapors. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. Contact lens use is not recommended.

Skin Protection

Where skin contact is likely, wear neoprene, nitrile, or equivalent protective gloves; use of natural rubber or equivalent gloves is not recommended. To avoid prolonged or repeated contact with products where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, coveralls, long sleeve shirts, or other protective clothing.

Respiratory Protection

Use NIOSH-certified P- or R- series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Do not use N-rated respirators. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

Section 9 - Physical & Chemical Properties * * *

Appearance/Odor: Liquid, clear, colorless to pale yellow

Mild hydrocarbon odor Odor Threshold:

30 ppm (based on Stoddard

148°F (64°C) (minimum)

Solvent)

Not applicable

Boiling Point: 350°F (177°C) (initial)

Solubility (H2O): Insoluble.

Melting Point: -45°F (-43°C) (maximum) Specific Gravity: 0.77 to 0.82 at 60°F (15.6°C)

(water = 1)

Not available

Density: 6.4 to 6.7 LB/US gal (770 to 800 g/l)

Octanol/H2O Coeff.: Not available **Evaporation Rate:** <0.1 (butyl acetate = 1)

Auto Ignition 480°F (249°C) (minimum)

pH:

Temperature:

Viscosity:

LFL: 0.7 VOL% (minimum) Flash Point:

UFL: 5 VOL% (maximum)

Vapor Pressure: 0.2 mm Hg at 68°F (20°C);

0.6 mm Hg at 100°F (37°C)

Vapor Density: 5 (air = 1) (approximately)

Other Property Information

No information is available.

* * * Section 10 - Stability & Reactivity * * *

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal temperatures and pressures.

Possibility of Hazardous Reactions

Will not polymerize under normal temperature and pressure conditions.

Conditions To Avoid

Avoid heat, sparks, flames, and other sources of ignition Avoid contact with incompatible materials.

Incompatible Materials

Avoid acids, alkalies, oxidizing agents, reducing agents, or reactive halogens.

Hazardous Decomposition Products

None under normal temperatures and pressures. See also Section 5: Hazardous Combustion Products.

* * * Section 11 - Toxicological Information * * *

Toxicity Data and Information

Component Analysis - LD50/LC50

Distillates (petroleum), hydrotreated light (64742-47-8)

Inhalation LC50 Rat >5.2 mg/L 4 h; Oral LD50 Rat >5000 mg/kg; Dermal LD50 Rabbit >2000 mg/kg

Information on Likely Routes of Exposure

Inhalation

May cause irritation, nausea, loss of appetite, headache, drowsiness, dizziness, disorientation, tremors, lung damage (from aspiration), convulsions, and coma.

Ingestion

May cause headache, drowsiness, dizziness, loss of coordination, and aspiration hazard.

Skin Contact

May cause irritation of the skin.

e Contact

No information on significant adverse effects.

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: GHS 82658

Immediate Effects

Central nervous system depression, lung damage (from aspiration), respiratory tract irritation, skin irritation.

Delayed Effects

Central nervous system damage, respiratory system damage.

Irritation/Corrosivity

Respiratory tract irritation, skin irritation.

Respiratory Sensitization

No information available for the product.

Skin Sensitization

No information available for the product.

Carcinogenicity

No carcinogenicity data available for this product.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Germ Cell Mutagenicity

Based on best current information, there is no known mutagenicity associated with this product.

Teratogenicity

No information available for the product.

Reproductive Effects

No epidemiological data is available for this product.

Specific Target Organ Effects - Single Exposure

Central nervous system.

Specific Target Organ Effects - Repeated Exposure

Central nervous system.

Aspiration Hazard

Lung aspiration hazard if swallowed.

Medical Conditions Aggravated by Exposure

Individuals with pre-existing respiratory tract (nose, throat, and lungs), central nervous system, kidneys, and eye and/or skin disorders may have increased susceptibility to the effects of exposure.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

According to the California Code of Regulations, a toxicity to aquatic life, specifically fish, is determined using an acute 96 hour bioassay. A material is non-hazardous if the LC₅₀ is >500 mg/L. This product passed the bioassay and is considered non-hazardous.

Persistence and Degradability

This material is believed not to biodegrade.

Bioaccumulation Potential

This material is believed not to bioaccumulate.

Mobility in Soil

Expected to have high mobility in soil.

Other Adverse Effects

No additional information is available.

* * * Section 13 - Disposal Considerations * * *

Disposal Methods

Not regulated. Based on available data, this information applies to the product as supplied to the user. Processing, use, or contamination by the user may change the waste code applicable to the disposal of this product.

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: GHS 82658

Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

* * * Section 14 - Transport Information * * *

Emergency Response Guide Number

128: Reference . North American Emergency Response Guide Book

Transportation Regulations

DOT Non-Bulk Packages (less than or equal to 119 gallons)

Not regulated.

Shipping Name: Cleaning compounds (Petroleum naphtha)(Not US DOT regulated)

Bulk Packages

Shipping Name: Combustible liquid, n.o.s. (petroleum naphtha)

UN/NA #: NA1993 Hazard Class: Combustible liquid Packing Group: III

Required Placards: Class 3, NA 1993

TDG Not regulated as dangerous goods.

* * * Section 15 - Regulatory Information * * *

Volatile Organic Compounds (As Regulated)

100 WT%; 6.4 to 6.7 LB/US gal; 770 to 800 g/l

As per 40 CFR Part 51.100(s).

VOC Vapor Pressure: <1.0 mmHg @ 20°C

Product may or may not be considered photochemically reactive (100% by weight).

Consult your state or local air district regulations for location specific information.

Federal Regulations

SARA 302/304

Component Analysis

Based on the ingredient(s) listed in SECTION 3, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

SARA 311/312 Hazardous Categories

This product poses the following health hazards as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):

Acute Health: Yes Chronic Health: Yes Fire: Yes Pressure: No Reactive: No

SARA Section 313

Component Analysis

This product does not contain any "toxic" chemical subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

CERCLA

Component Analysis

Based on the ingredient(s) listed in SECTION 3, this product does not contain any "hazardous substance" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

TSCA Inventory

All the components of this substance are listed on or are exempt from the TSCA inventory listing.

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: GHS 82658

Component Analysis

Component	CAS#	TSCA
Distillates (petroleum), hydrotreated light	64742-47-8	Yes

U.S. State Regulations

This product may contain a detectable amount of benzene CAS 71-43-2, p-dichlorobenzene CAS 106-46-7, ethylbenzene CAS 100-41-4, and naphthalene CAS 91-20-3. WARNING: These chemicals are known to the State of California to cause

This product may contain a detectable amount of benzene CAS 71-43-2 and toluene CAS 108-88-3. WARNING: These chemicals are known to the State of California to cause birth defects or other reproductive harm.

Canadian Regulations

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

Component Analysis

Component	CAS#	CAN
Distillates (petroleum), hydrotreated light	64742-47-8	DSL

Canadian WHMIS Information

B3 D2B

Section 16 - Other Information * * *

Revision Information

Reformat to OSHA HazCom 29 CFR 1910,1200 adoption of GHS Revision 3.

Key/Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA -Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL -Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of LIstsTM - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Disclaimer

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers. The data contained on this sheet apply to the product as supplier to the user.

End of Sheet 82658





Section 1: Identification

Trichlorethylene

Product Name:

Trichloroethylene

Synonyms:

1,1,2-Trichloroethene

1-Chloro-2,2-Dichloroethylene

Ethylene trichloride

CAS No.:

TCE

Chemical Formula:

79-01-6 C₂HCl₃

Company:

AllChem Industries ICG, Inc.

Emergency Number: CHEMTREC: 800-424-9300

6010 NW First Place Gainesville, FL 32607

Tel: (352) 378-9696

Recommended Use:

Manufacture / Distribution of substance

Use as a functional fluid

Formulation & (re)packing of substances and mixtures

Use as a process solvent

Use in cleaning agents

Sealants and adhesives

Section 2: Hazard(s) Identification

Emergency Overview:

Aspiration hazard.

Carcinogen, Irritant, Mutagen.

May cause respiratory and digestive tract irritation.

May cause cancer based on animal studies.

Target Organs: Central nervous system, liver, heart, lungs.

GHS Classification:

Skin irritation 2
Eye irritation 2A
Skin Sens. 1
Germ cell mutagenicity 2
Carcinogenicity 1B
STOT - single exposure 2
Chronic aquatic toxicity 3

GHS Label elements:

Pictograms:

Signal Word:



Danger



AllChem Industries Industrial Chemicals Group, Inc. 6010 NW First Place • Gainesville, FL 32607

TEL: (352) 378-9696 FAX: (352) 333-7438



Hazard Statements:		Code	Description		
		H315	Causes skin irritation.		
		H317	May cause an allergic skin reaction.		
		H319	Causes serious eye irritation.		
		H336	May cause drowsiness or dizziness.		
		H341	Suspected of causing genetic defects.		
		H350	May cause cancer.		
		H412	Harmful to aquatic life with long lasting effects.		
Precautionary Statements:		Code	Description		
		P201	Obtain special instructions before usc.		
		P261	Avoid breathing dust/fume/gas/mist/vapors/spray.		
		P273	Avoid release to the environment.		
		P280	Wear protective gloves/clothing and eye/face protection		
		P302, P352	IF ON SKIN: Wash with plenty of soap and water.		
		P202	Do not handle until all safety precautions have been read and understood		
		P271	Use only outdoors or in a well-ventilated area.		
		P272	Contaminated work clothing should not be allowed out of the workplace		
		P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.		
		P305, P351,	IF IN EYES: Rinse cautiously with water for several minutes. Remove		
		P338	contact lenses, if present and easy to do. Continue rinsing.		
Other classifications:					
NFPA Rating:			HMIS:		
Health:	2		Health: 2		
Fire:	1		Flammability: 0		
Reactivity:	0		Physical: 0		

Section 3: Composition, Information on Ingredients					
Component	CAS No	Index No	Concentration	EC-No	
Trichloroethylene	79-01-6	602-027-00	-9	201-167-4	

Section 4: First-aid measures

Inhalation:

Move the exposed person to fresh air at once.

Perform artificial respiration if breathing has stopped.

If breathing is difficult, properly trained personnel may assist affected person by administering oxygen.

Get medical attention if any discomfort continues.

Ingestion:

DO NOT INDUCE VOMITING!

Drink plenty of water.

Do not give victim anything to drink if he is unconscious.

Get medical attention immediately!

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Skin Contact:

Remove contaminated clothes and rinse skin thoroughly with water.

Get medical attention if any discomfort continues,

Eye Contact:

Promptly wash eyes with plenty of water while lifting the eye lids. Make sure to remove any contact lenses from the eyes before rinsing.

Continue to rinse for at least 15 min.

Get medical attention if any discomfort continues.

NOTE TO PHYSICIAN:

Treat symptomatically and supportively.

Section 5: Fire-fighting measures

Conditions of flammability:

Not flammable or combustible.

Extinguishing Media:

Extinguish with foam, carbon dioxide, dry powder or water fog. Do not use water jet as an extinguisher, as this will spread the fire.

Special protective equip.:

Wear a self-contained breathing apparatus MSHA/NIOSH (approved or equivalent), and

full protective gear.

Hazardous combustion products:

Hydrogen chloride, Chlorine, Phosgene, Carbon monoxide, Carbon Dioxide.

Special Information:

Vapors can travel to a source of ignition and back. Containers may explode in the heat of a fire.

Section 6: Accidental release measures

Personal precautions:

Wear personal protection equipment.

Evacuate surrounding areas.

Emergency procedures:

Remove all sources of ignition.

Provide ventilation.

Environmental precautions:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Discharge into the environment must be avoided.

Methods of containment/cleanup:

Absorb spill with inert material, (e.g., vermiculite, dry sand or earth), then place into a

chemical waste container.

Section 7: Handling and storage

Handling:

Do not use in confined spaces without adequate ventilation and/or respirator.

Do not eat, drink or smoke when using product. Do not ingest.

Eliminate all sources of ignition.

Handle product only in closed system or provide adequate exhaust ventilation at machinery

Avoid inhalation of vapors/spray and contact with skin and eyes.

Container must be kept tightly closed.

Provide good ventilation.

Storage:

Keep away from heat, sparks, open flame, direct sunlight.

Store in tightly closed original container in a dry, cool and well-ventilated place.

Do NOT use storage tank made of:

Aluminum, aluminum alloy, or zinc

May attack some plastics, rubber and coatings.

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Section 8: Exposure controls/ personal protection

Exposure Limits:

Regulator:

Test:

Allowance:

Workplace Exposure Limit (WEL)
Workplace Exposure Limit (WEL)

STEL TWA 150 ppm 8 100 ppm 5

820 mg/m³ 550 mg/m³

Engineering Controls:

Use adequate ventilation to keep airborne concentrations low.

An emergency eye wash/shower must be readily accessible to the work area.

Personal Protective Equipment:

Personal Respirators:

Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149.

Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Skin Protection:

Wear appropriate protective gloves and clothing to prevent skin exposure.

Eye Protection:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face

protection regulations in 29 CFR 1910.133 or European Standard EN166.

Section 9: Physical and chemical properties

Appearance

Physical State:

Liquid

Color:

Clear, colorless

Odor:

Chlorinated hydrocarbons

Odor Perception Threshold:

No data available

pH:

No data available

Specific Temperatures:

Freezing/Melting Point:

-84.8°C

-121°F

Boiling Point:

87.760 mmHg

Decomposition temperature:

No data available.

Flammability Characteristics:

Flash Point:

Does Not Flash

Auto-ignition Temperature:

770°F

Explosivity Characteristics:

Lower (LEL):

8% (V)

410°C

Upper (UEL):

44.8% (V)

Vapor Pressure:

9.9 kPa @ 25°C

Density:

Vapor Density (air-1):

4.53

Relative Density (water=1):

1.47

Solubility:

In Water:

Insoluble in water.

Octanol/water Partition Coefficient:

log Pow: 2.53

Complementary Data:

Molecular Weight:

No data available

Evaporation Rate:

No data available

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Optional Data:

Viscosity:

0.58 mPas @ 20 °C

Section 10: Stability and reactivity

Stability:

Stable at room temperature and under normal conditions.

Hazardous Reactions:

Will not polymerize.

Conditions to Avoid:

Incompatible materials, ignition sources, and high temperatures/ direct sunlight.

Incompatibilities:

Strong alkalis. Reaction with strong alkali metal hydroxides will form dichloroacetylene which can

spontaneously ignite in air

Strong oxidizing substances, amines.

Avoid contact with metals such as: zinc powders, aluminum powders, magnesium powders, potassium,

sodium. Avoid prolonged contact or storage with aluminum or its alloys

Hazardous Decomposition Products:

Toxic gases of hydrogen chloride, chlorine, phosgene, carbon monoxide, carbon dioxide.

Section 11: Toxicological information

Potential health effects:

Inhalation:

Vapors may cause drowsiness and dizziness.

In case of overexposure, organic solvents may depress the central nervous system causing dizziness and

intoxication, and at very high concentrations unconsciousness and death.

Skin Contact:

Skin irritation. May cause an allergic skin reaction

Prolonged contact may cause redness, irritation and dry skin.

Eye Contact:

May cause temporary eye irritation.

Ingestion: No specific symptoms noted.

Numerical measures of Toxicity -

Acute Toxicity:		Test	<u>Subject</u>	<u>Value</u>	
Inhalation		LC 50	Rat	12,500 ppm	(4 hours)
Oral		LD 50	Rat	5,400 mg/kg	
Dermal		LD 50	Rabbit	>2,000 mg/kg	
Additional Information:	RTECS:	KX4550000			

Section 12: Ecological information				
Eco toxicity:	Test	<u>Subject</u>	<u>Value</u>	
Fish:	LC 50	Limanda	16 mg/L	(96 hours)
Aquatic invertebrates:	EC 50	Daphnia magna	20.8 mg/l	(48 hours)
Aquatic plants:	EC 50	Chlamydomonas reinhardtii	36.5 mg/l	(72 hours)
Microorganisms:	EC 50	Activated sludge	260 mg/l	(3 hours)
Persistence and degradability:		The product is not readily biodegradable.	2.4 Degradation (%): 14 days	
Bio accumulative potential:		Bioconcentration potential is low.	BCF < 100	
Mobility in soil:		Potential for mobility in soil is very high	Soil Koc > 4	41

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Section 13: Disposal considerations

Product:

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

Disposal:

Dispose of according to Federal, State, and Local Regulations

Section 14: Transport information

The information in this section is for reference only and should not take the place of a bill of lading specific to an order.

UN 1710

UN proper shipping name:

Trichloroethylene

Transport hazard class:

6.1

Packing group number:

Ш

Marine Pollutant:

No

Labels & Placards:

TOXIC

EMS-No

F-A, S-A

RQ:

100 lbs.

Section 15: Regulatory information

US FEDERAL

TSCA:

CAS# 79-01-6 is listed on the TSCA inventory.

Section 16 - Other Information

SDS Creation Date:

3/11/2013

Revision date:

3/10/2015

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