Revision Date: July 22, 2015 Revision Number: 3, supersedes 2

# SAFETY DATA SHEET

**Polywater Europe BV** 

Zuidhaven 9-11 Unit B2

4761 CR Zevenbergen

Netherlands

# 1. Identification of the substance/mixture and of the company

# 1.1 Product identifier

# **Product Name:** Type KC<sup>™</sup> Contact Cleaner Aerosol

Product ID numbers: KC-16, KC-16LA

1.2 Relevant identified uses of the mixture and uses advised against

Identified uses: Contact cleaning List of advices against: Not applicable.

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer:

**American Polywater Corporation** 

11222 - 60th Street North Stillwater, MN 55082 USA Tel: 1-651-430-2270

Email: sds@polywater.com

Tel: +31 (0)10 2330578 Email: sds@ polywater.com

1.4 Emergency telephone numbers

INFOTRAC 1-352-323-3500 (USA)

# 2. Hazards Identification

### 2.1 Classification of the substance or mixture

Classification according to OSHA 29 CFR 1910.1200 and Regulation (EC) No 1272/2008.

Aerosol 3 H229 Gas under pressure, liquefied gas H280 H320 Eye Irrit 2B STOT Se 3 (CNS) H336

# 2.2 Label elements

This product is intended for consumer use and is labeled according to CPSC guidelines and not to GHS guidelines listed below. It is safe for consumers and other users under normal and reasonably foreseeable use. The SDS contains valuable information for industrial workplace conditions.

Ethyl nonafluoroisobutyl ether, Ethyl nonafluorobutyl ether, trans-Dichloroethylene,

Contains: norflurane





**Pictograms:** 

Signal word: Warning

**Hazard Statements:** 

H229 Pressurized container, may burst if heated

H280 Contains gas under pressure; may explode if heated

H320 Causes eye irritation.

H336 May cause drowsiness or dizziness.

**Precautionary Statements:** 

P210 Keep away from flames and hot surfaces. No smoking.

P251 Do not pierce or burn, even after use.

P261 Avoid breathing spray or vapors. Wash thoroughly after handling. P264 P271 Use only outdoors or in a well-ventilated area. P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, P305 + P351 if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical attention. P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Dispose of contents/container in accordance with local and national regulations. P501

**2.3 Other hazards:** No information available.

# 3. Composition/Information on Ingredients

Component	CAS#	EC #	<u>Wt. %</u>	<b>GHS/CLP Classification</b>
Ethyl nonafluorobutyl ether	163702-05-4		< 30	
Ethyl nonafluoroisobutyl ether	163702-06-5		< 30	Eye Irrit 2A H319
Trans-Dichloroethylene	156-60-5	205-860-2	< 15	Flam Liq 2, H225; Acute Tox 4, H3332; Aquatic Chronic 3, H412
Norflurane	811-97-2	212-377-0	< 30	71900110 0,11712

### 4. First Aid Measures

# 4.1 Description of first aid measures

Eye Contact: Flush eyes with clean water. Remove contact lenses if easy to do. Continue

rinsing. If irritation persists, seek medical attention.

**Skin Contact:** Remove contaminated clothing; flush skin thoroughly with water. If irritation

occurs, seek medical attention.

Inhalation (Breathing): If irritation of nose or throat develops, move to fresh air. If irritation persists, seek

medical attention.

**Ingestion (Swallowing):** Rinse mouth. If you feel unwell, get medical attention.

#### 4.2 Most important symptoms and effects, both acute and delayed

Refer to Section 11 for more information.

# 4.3 Indication of immediate medical attention and special treatment needed.

No information available.

#### 5. Firefighting Measures

#### 5.1 Extinguishing media:

Carbon dioxide, water fog, dry chemical or foam.

### 5.2 Special hazards arising from the substance or mixture

#### Hazardous decomposition and by-products:

Burning generates CO, CO<sub>2</sub> and smoke. Smoke may be acrid and fumes irritating.

### 5.3 Advice for firefighters

Wear full protective clothing, including self-contained, positive pressure or pressure-demand breathing apparatus. Sealed container can build up pressure when exposed to high heat. Use water spray to cool fire exposed containers. Aerosol cans can build up pressure and explode when exposed to temperatures greater than 122°F (50°C).

#### 6. Accidental Release Measures

# 6.1 Personal precautions, protective equipment and emergency procedures:

Keep away from heat/sparks/open flames/hot surfaces. No smoking. For a spill in a confined space, provide mechanical ventilation to disperse or exhaust vapors. For emergency responders: use respiratory protection: half-face or full-face respirator with filter(s) for organic vapor for spills in a confined space. Refer to other sections of this SDS for information regarding physical and health hazards and personal protective equipment.

### 6.2 Environmental precautions:

Avoid release to the environment. Dyke the spill to prevent entry into waterways, sewers, basements or confined areas.

## 6.3 Methods materials for containment and cleaning up:

Absorb spill with sand or absorbents. Collect as much of the spilled material as possible using non-sparking tools and transfer to a container. Seal the container. Remember, adding an absorbent material does not change the toxicity or flammability hazard.

### 6.4 Reference to other sections:

Refer to Sections 4, 5, 8, and 13 for more information.

## 7. Handling and Storage

# 7.1 Precautions for safe handling

Avoid breathing vapors or spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Wash contaminated clothing before reuse. For industrial or professional use only.

# 7.2 Conditions for safe storage, including incompatibilities

Do not expose container to direct sunlight or temperatures above 122°F (50°C). Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store away from acids and oxidizing agents.

## 7.3 Specific end uses

See product literature for further information.

# 8. Exposure Controls / Personal Protection

## 8.1 Control parameters

# **Exposure limits and recommendations:**

Component Name	Limit	Standard	Source/Note
Ethyl nonafluorobutyl ether	750 ppm	ACGIH TWA	<b>United States</b>
Ethyl nonafluorobutyl ether	200 ppm		Manufacturer
Ethyl nonafluoroisobutyl ether	750 ppm	ACGIH TWA	<b>United States</b>
Ethyl nonafluoroisobutyl ether	200 ppm		Manufacturer
Trans-Dichloroethylene	200 ppm 790 mg/m <sup>3</sup>	ACGIH TWA	United States
Trans-Dichloroethylene	(200 ppm)	OSHA TWA	United States
Norflurane	1,000 ppm	AIHA	<b>United States</b>

# 8.2 Exposure controls

#### Respiratory protection:

Normal ventilation is adequate. If exposure exceeds recommended limits, respirator protection is recommended. Use a respirator or gas mask with cartridges for organic vapors (NIOSH or CE approved) with particulate pre-filter, P100 or AP2.

### **Protective gloves:**

No chemical protective gloves are required.

#### Eye protection:

Safety goggles recommended.

# Other protective equipment:

It is suggested that a source of clean water be available in work area for flushing eyes and skin. Impervious clothing should be worn as needed.

# 9. Physical and Chemical

## 9.1 Information of basic physical and chemical properties (bulk liquid)

**Appearance:** Clear, colorless liquid in aerosol package.

Odor threshold:

pH:

Not available

Not available

Not available

Boiling point:

Not available

Flash point: None

**Evaporation rate:** Not available

Flammability (solid, gas): Not applicable to liquids

Upper/lower flammability or

**explosive limits:** LEL = 6.7% UEL = 13.7%

Vapor pressure: 330 mm Hg Vapor density (Air = 1): Not available

Specific gravity ( $H_2O = 1$ ): 1.4

Solubility in water: Negligible

Partition coefficient: n-

octanol/water: Not available

Auto-ignition temperature: 396°C

**Decomposition temperature:** Not available **Viscosity:** 0.6 centipoise

9.2 Other Information

Volatiles (Weight %): 100%

# 10. Stability and Reactivity

#### 10.1 Reactivity:

See remaining headings in Section 10.

# 10.2 Chemical stability:

Stable

# 10.3 Possibility of hazardous reactions:

None known.

## 10.4 Conditions to avoid:

High shear, high temperature conditions.

## 10.5 Incompatible materials:

Aluminum or Magnesium powder.

## 10.6 Hazardous decomposition products:

<u>Above the boiling point</u>, small amounts of toxic decomposition products may form, including hydrogen fluoride, hydrogen chloride, and perfluoroisobutylene.

### 11. Toxicological Information

# 11.1 Information on toxicological effects:

# **Acute toxicity**

### Eye contact:

Moderate eye irritantt.

#### Skin contact:

Contact with skin during use is not expected to result in significant irritation. Persons with pre-existing skin disorders may be more susceptible to skin irritation from this material.

# **Irritation and Sensitization Potential:**

Product is not a sensitizer.

## Inhalation (Breathing):

May cause irritation of the nose and throat. May cause drowsiness or dizziness. Signs/symptoms include cough, sneezing, nasal discharge, headache, hoarseness and nose and throat pain.

## Ingestion:

May be harmful if swallowed. Gastrointestinal irritation signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

# **Toxicity to Animals:**

Ethyl nonafluorobutyl ether LD<sub>50</sub> (oral rat) >2,000 mg/kg

 $LC_{50}$  (inhl rat) >989 mg/L, 4 hours

Ethyl nonafluoroisobutyl ether  $LD_{50}$  (oral rat) >2,000 mg/kg

 $LC_{50}$  (inhl rat) >989 mg/L, 4 hours

RD<sub>50</sub> 1000 ppm

Trans-Dichloroethylene  $LD_{50}$  (oral rat) >5,000 mg/kg

> LD<sub>50</sub> (dermal rabbit) >5,000 mg/kg LC<sub>50</sub> (inhl rat) 95.6 mg/L, 4 hours

Norflurane  $LC_{50}$  (inhl rat) >500,000 ppm, 4 hours

# **Chronic Exposure:**

Reproductive Toxicity: Not available.

NOAEL 1,000 mg/kg

Ethyl nonafluorobutyl ether (oral rat, 28 days) Not toxic to reproduction and/or development

NOAEL 1,000 mg/kg/day

(oral rat, 28 days) Not toxic to female reproduction

NOAEL 1,000 mg/kg/day

(oral rat, 28 days) Not toxic to male reproduction

NOAEL 3,000 ppm (inhl rat) Not toxic to reproduction and/or development

NOAEL 260.1 mg/l

(inhl rat, during gestation) Not toxic to female reproduction

NOAEL 263.4 mg/l

Not toxic to male reproduction (inhl rat, 28 days)

NOAEL 260 mg/l Some positive developmental data exist, but

not sufficient for classification (inhl rat, 28 days)

NOAEL 1,000 mg/kg Ethyl nonafluoroisobutyl ether

(oral rat, 28 days) Not toxic to reproduction and/or development

Not toxic to female reproduction

Not toxic to reproduction and/or development

NOAEL 1,000 mg/kg/day

(oral rat, 28 days)

NOAEL 1,000 mg/kg/day

(oral rat, 28 days) Not toxic to male reproduction

NOAEL 3,000 ppm (inhl rat)

NOAEL 260.1 mg/l Not toxic to female reproduction

(inhl rat, during gestation)

NOAEL 263.4 mg/l

(inhl rat, 28 days) Not toxic to male reproduction

NOAEL 260 mg/l Some positive developmental data exist, but

(inhl rat, 28 days) not sufficient for classification

NOAEL 3,000 mg/kg/day Trans-Dichloroethylene

(oral rat, 90 days) Not toxic to female reproduction

NOAEL 3,000 mg/kg/day

(oral rat, 90 days) Not toxic to male reproduction

NOAEL 16 mg/l

(inhl rat, 90 days) Not toxic to female reproduction

NOAEL 16 mg/l

(inhl rat, 90 days) Not toxic to male reproduction NOAEL 24 mg/l Some positive developmental data exist, but

(inhl rat, during organogenesis) not sufficient for classification

Mutagenicity: Not available. Teratogenicity: Not available.

Specific Target Organ Toxicity (STOT) –	Took Donomotor	Towns Orner(s)	Value	
Single Exposure	Test Parameter	Target Organ(s) Cardiac	Value	
Ethyl nonafluorobutyl ether	NOAEL 204 mg/l (inhl dog, 17 mins)	sensitization	Some positive data exist, but not sufficient for classification	
Ethyl Hohandorobutyl ether	NOAEL 989 mg/l	Respiratory	not sufficient for classification	
	(inhl rat, 4 hrs)	irritation	All data negative	
	NOAEL 204 mg/l	Cardiac	Some positive data exist, but	
Ethyl nonafluoroisobutyl ether	(inhl, dog, 17 mins)	sensitization	not sufficient for classification	
	NOAEL 989 mg/l	Respiratory		
	(inhl rat, 4 hrs) NOAEL not available	irritation	All data negative	
Trans-Dichloroethylene	(inhl human, occupational exposure)	CNS depression	Some positive data exist, but not sufficient for classification	
Trans-Dichloroethylene	NOAEL not available	CNS depression		
	(inhl human,	Respiratory	Some positive data exist, but	
	occupational exposure)	irritation	not sufficient for classification May cause drowsiness or dizziness	
	LOAEL 4,500 mg/kg			
	(oral rat, not applicable)	CNS depression		
Nauflance	NOEL 50,000 ppm	Cardiac		
Norflurane Specific Target Organ	(inhl, dog)	sensitization	All data negative	
Toxicity (STOT) –				
Repeated Exposure	Test Parameter	Target Organ(s) Liver, kidney and/or	Value	
	NOAEL 263.4 mg/l	bladder, respiratory	Some positive data exist, but	
Ethyl nonafluorobutyl ether	(inhl rat, 4 weeks)	system	not sufficient for classification	
		Heart, endocrine system, bone		
		marrow,		
		hematopoietic		
		system, nervous		
	NOAEL 263.4 mg/l	system, immune		
	(inhl rat, 4 weeks)	system	All data negative	
	NOAEL 1,000 mg/kg/day	Blood, liver, kidney	Some positive data exist, but	
	(oral rat, 28 days)	and/or bladder Heart, endocrine	not sufficient for classification	
		system, bone		
		marrow,		
		hematopoietic		
		system, nervous		
	NOAEL 1,000 mg/kg/day	system, immune	All Jaconson Co.	
	(oral rat, 28 days)	system Liver, kidney and/or	All data negative	
	NOAEL 263.4 mg/l	bladder, respiratory	Some positive data exist, but	
Ethyl nonafluoroisobutyl ether	(inhl rat, 4 weeks)	system	not sufficient for classification	
		Heart, endocrine		
		system, bone		
		marrow,		
		hematopoietic system, nervous		
	NOAEL 263.4 mg/l	system, immune		
	(inhl rat, 4 weeks)	system	All data negative	
	NOAEL 1,000 mg/kg/day	Blood, liver, kidney	Some positive data exist, but	
	(oral rat, 28 days)	and/or bladder	not sufficient for classification	
		Heart, endocrine		
		system, bone marrow,		
	NOAEL 1,000 mg/kg/day	hematopoietic		
	(oral rat, 28 days)	system, nervous	All data negative	

system, immune

system

Endocrine system, liver, kidney and/or

NOAEL 16 mg/l Trans-Dichloroethylene

(inhl rat, 90 days)

system

bladder, respiratory

NOAEL 2,000 mg/kg/day (oral rat, 14 weeks)

Kidney and/or

Some positive data exist, but

All data negative

NOAEL 125 mg/kg/day

bladder

not sufficient for classification Some positive data exist, but

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(oral rat, 14 weeks)

Blood, liver

not sufficient for classification

NOAEL 2,000 mg/kg/day

Heart, immune

system, respiratory

system All data negative

**Toxicologically** 

**Synergistic Products:** 

Not available.

(oral rat, 28 days)

Carcinogenic Status: This substance has not been identified as a carcinogen or probable carcinogen

by NTP, IARC, or OSHA, nor have any of its components.

# 12. Ecological Information

# 12.1 Toxicity:

**Ecotoxicity:** No information available. **Aquatic Toxicity:** No information available. 12.2 Persistence and degradability: No information available. 12.3 Bioaccumulation potential: No information available 12.4 Mobility in soil: No information available.

12.5 Results of PBT and vPvB

Assessment:

This product is not, nor does it contain a substance that is a PBT or

vPvB.

12.6 Other adverse effects: None known.

# 13. Disposal Considerations

Dispose of product in accordance with National and Local Regulations.

# 14. Transport Information

**UN Number:** 1950

**UN Proper shipping name:** AEROSOLS, Flammable, less than 1 liter each, Class 2.1, LTD QTY

Transport hazard class(es): Class 9

Packing group: Not Applicable **Environmental hazards:** None known Special precautions: None known TDG: Not Regulated

ICAO/IATA-DGR: Consumer Commodity, ID 8000, Class 9, LTD QTY

UN 1950, AEROSOLS, Nonflammable, less than 1 liter each, Class 2.1, LTD

IMDG: QTY

### 15. Regulatory Information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### **USA Federal and State**

All components are listed on the TSCA inventory.

**Hazard Categories for SARA** Acute Chronic Fire **Pressure Reactive**  Product Name: Type KC<sup>™</sup> Contact Cleaner Aerosol (KC-12) Revision Date: July 22, 2015

Section 311/312 Reporting No No Yes No No

CERCLA/SARA Sec 302 SARA Sec. 313

Components Hazardous Substance RQ EHS TPQ Toxic Release

Trans-Dichloroethylene No No Yes

NFPA Ratings: Health: 3

Fire: 1 Reactivity: 0

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel during spill, fire or similar emergencies. Hazard ratings are based on physical and toxic properties of combustion or decomposition.

## **European Union**

All components are listed on the European Inventory of Existing Chemical Substances (EINECS). Product complies with the communication requirements of REACH Regulation (EC) No. 1907/2006. It does not contain Substances of Very High Concern (SVHC).

### Canada

All components are listed on the DSL inventory.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS Classification: NC

#### **Australia**

All components are listed on the AICS.

Hazardous according to criteria of NOHSC Australia. Product classified as harmful (Xn).

# 15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out for the mixture by the supplier.

### 16. Other Information

### Abbreviations and acronyms:

OSHA = Occupational Safety and Health Administration

CLP = Classification, Labeling and Packaging Regulation

STOT = Specific Target Organ Toxicity

 $LD_{50}$  = Median Lethal Dose

DNEL = Derived No Effect Level

ACGIH = American Conference of Governmental Industrial Hygienists

TSCA = Toxic Substances Control Act (USA)

DSL = Domestic Substances List (Canada)

AICS = Australian Inventory of Chemical Substances

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**Revision Number:** 3

Supersedes: May 21, 2015 Other: Not Applicable

**Indication of Changes:** Section 2.2 Label elements updated (gas under pressure).

Updated in accordance with the provisions of OSHA 1910.1200 App D and REACH

Annex II (EU No 453/2010). (GHS format)

The information and recommendations contained herein are believed to be reliable. However, the supplier makes no warranties, express or implied, concerning the use of this product. The buyer must determine conditions of safe usage and assumes all risk and liability in handling this product.