



SAFETY DATA SHEET

in accordance with 1907/2006/EC (REACH, as amended by 453/2010/EC) and 29 CFR 1910.1200

Revision date: 29 May 2015

Initial date of issue: 3 July 2007

SDS No. 267A-19

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

276 Electronic Component Cleaner (Aerosol)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Petroleum base cleaner.

1.3. Details of the supplier of the safety data sheet

Company:

A.W. CHESTERTON COMPANY
860 Salem Street
Groveland, MA 01834-1507, USA
Tel.: +1 978-469-6446 Fax: +1 978-469-6785
(Mon. - Fri. 8:30 - 5:00 PM EST)
SDS requests: www.chesterton.com
E-mail (SDS questions): ProductMSDSs@chesterton.com
E-mail: customer.service@chesterton.com

Supplier:

1.4. Emergency telephone number

24 hours per day, 7 days per week
Call Infotrac: 1-800-535-5053
Outside N. America: +1 352-323-3500 (collect)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

2.1.1. Classification according to Regulation (EC) No 1272/2008 [CLP]

Aerosol 1, H222, H229
Asp. Tox. 1, H304
STOT SE 3, H336
EUH066
Aquatic Chronic 2, H411

2.1.2. Classification according to Directives 1999/45/EC and 1975/324/EEC

Extremely flammable; F+; R12
Harmful; Xn; R65
R67
R66
Dangerous for the environment; N; R51/53

2.1.3. Classification according to 29 CFR 1910.1200 / WHMIS 2015

Flam. Aerosol 1, H222
Asp. Tox. 1, H304
STOT SE 3, H336
EUH066
Aquatic Chronic 2, H411

2.1.4. Classification according to WHMIS 1988

B5: Flammable aerosols; A: Compressed gases; D2B: Toxic materials causing other effects

2.1.5. Australian statement of hazardous nature

Hazardous according to criteria of Safe Work Australia.

2.1.6. Additional information

For full text of H-statements and R-phrases: see SECTIONS 2.2 and 16.

2.2. Label elements**2.2.1. Labelling according to Regulation (EC) No 1272/2008 [CLP]****Hazard pictograms:****Signal word:** Danger

Hazard statements: H222 Extremely flammable aerosol.
 H229 Pressurized container: May burst if heated.
 H336 May cause drowsiness or dizziness.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P211 Do not spray on an open flame or other ignition source.
 P251 Do not pierce or burn, even after use.
 P261 Avoid breathing vapours/spray.
 P312 Call a POISON CENTER or doctor/physician if you feel unwell.
 P410/412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

Supplemental information: EUH066 Repeated exposure may cause skin dryness or cracking.

2.2.2. Labelling according to 29 CFR 1910.1200 / WHMIS 2015**Hazard pictograms:****Signal word:** Danger

Hazard statements: H222 Extremely flammable aerosol.
 H304 May be fatal if swallowed and enters airways.
 H229 Pressurized container: May burst if heated.
 H336 May cause drowsiness or dizziness.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P211 Do not spray on an open flame or other ignition source.
 P251 Do not pierce or burn, even after use.
 P261 Avoid breathing vapours/spray.
 P301/310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 P331 Do NOT induce vomiting.
 P410/412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

Supplemental information: EUH066 Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

None known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.2. Mixtures**

Hazardous Ingredients ¹	% Wt.	CAS No./ EC No.	REACH Reg. No.	Classification (CLP/GHS)	Classification (67/548/EEC)
Naphtha (petroleum), light alkylate*	85-95	64741-66-8 265-068-8	NA	Flam. Liq. 2, H225 Asp. Tox. 1, H304 EUH066 STOT SE 3, H336 Aquatic Chronic 2, H411	F; R11 Xn; R65 R66 R67 N; R51/53
Isopropanol	5-9	67-63-0 200-661-7	01-211945 7558-25	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	F; R11 Xi; R36 R67
Carbon Dioxide	1-5	124-38-9 204-696-9	NA	Press. Gas, H280	Not classified

Indications of danger acc. to 67/548/EEC: F: Highly flammable; Xn: Harmful; Xi: Irritant; N: Dangerous for the environment
For full text of H-statements and R-phrases: see SECTION 16.

*Contains less than 0.1 % w/w Benzene.

¹ Classified according to: * 29 CFR 1910.1200, 1915, 1916, 1917, Mass. Right-to-Know Law (ch. 40, M.G.L..O. 111F), California Proposition 65
* 1272/2008/EC, 67/548/EEC, 99/45/EC, REACH
* WHMIS 2015
* Safe Work Australia [NOHSC: 1008 (2004)]

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation: Remove to fresh air. If not breathing, administer artificial respiration. Contact physician immediately.

Skin contact: Wash skin with soap and water. Contact physician if irritation persists.

Eye contact: Flush eyes for at least 15 minutes with large amounts of water. Contact physician if irritation persists.

Ingestion: Do not induce vomiting. Contact physician immediately.

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

Direct eye contact may result in eye irritation. Inhalation of vapor concentrations in excess of 1000 ppm will cause eye and respiratory tract irritation, dizziness, headache and other central nervous system effects. Prolonged or repeated skin contact may defat the skin and cause skin irritation. Aspiration into the lungs may cause chemical pneumonitis or pulmonary oedema.

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

Treat symptoms.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Carbon Dioxide, dry chemical, foam or water spray

Unsuitable extinguishing media: Water jets

5.2. Special hazards arising from the substance or mixture

Pressurized containers, when heated, are a potential explosive hazard.

5.3. Advice for firefighters

Cool exposed containers with water. Recommend Firefighters wear self-contained breathing apparatus.

Flammability Classification: NFPA Storage Level III; 16 CFR 1500.3 Extremely flammable aerosol

HAZCHEM Emergency Action Code: 2 **Y**

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Provide adequate ventilation. Utilize exposure controls and personal protection as specified in Section 8.

6.2. Environmental Precautions

Keep out of sewers, streams and waterways.

6.3. Methods and material for containment and cleaning up

Contain spill to a small area. Keep away from sources of ignition - No smoking. If removal of ignition sources is not possible, then flush material away with water. Pick up with absorbent material (sand, sawdust, clay, etc.) and place in a suitable container for disposal.

6.4. Reference to other sections

Refer to section 13 for disposal advice.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Shake well before using. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No Smoking. After handling, wash before eating, drinking or smoking. Vapors are heavier than air and will collect in low areas. Vapor accumulations could flash and/or explode if ignited.

7.2. Conditions for safe storage, including any incompatibilities

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C (120°F). Do not pierce or burn, even after use.

7.3. Specific end use(s)

No special precautions.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters****Occupational exposure limit values**

Ingredients	OSHA PEL ¹		ACGIH TLV ²		UK WEL ³		AUSTRALIA ES ⁴	
	ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Naphtha (petroleum), light alkylate*	–	–	300*	1400*	–	–	–	–
Isopropanol	400	980	200 STEL: 400	–	400 STEL: 500	999 STEL: 1250	400 STEL: 500	983 STEL: 1230
Carbon Dioxide	5000	9000	5000 STEL: 30000	9000 54000	5000 STEL: 15000	9150 STEL: 27400	5000 STEL: 30000	9000 54000

*Based on the procedure described in appendix H, "Reciprocal calculation method for Certain Refined Hydrocarbon Solvent Vapor Mixtures" of the ACGIH TLVs® and BEIs®.

¹ United States Occupational Health & Safety Administration permissible exposure limits.

² American Conference of Governmental Industrial Hygienists threshold limit values.

³ EH40 Workplace exposure limits, Health & Safety Executive

⁴ Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003].

8.2. Exposure controls**8.2.1. Engineering measures**

Use only in well-ventilated areas. If exposure limits are exceeded, provide adequate explosion-proof ventilation.

8.2.2. Individual protection measures

Respiratory protection: Not normally needed. If exposure limits are exceeded, use approved organic vapor respirator (e.g., EN filter type A-P2).

Protective gloves: Chemical resistant gloves (e.g. neoprene, nitrile).

Eye and face protection: Safety goggles.

Other: Impervious clothing as necessary to prevent skin contact.

8.2.3. Environmental exposure controls

Refer to sections 6 and 12.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Physical state	liquid	Odour	mild odour
Colour	clear	Odour threshold	not determined
Initial boiling point	98°C (208°F)	Vapour pressure @ 20°C	approx. 60 mm Hg
Melting point	not determined	% Aromatics by weight	< 0.01%
% Volatile (by volume)	100%	pH	not applicable
Flash point	-6.1°C (21°F)	Relative density	0.7 kg/l
Method	Closed Cup	Weight per volume	5.8 lbs/gal.
Viscosity	1 cst @ 25°C	Coefficient (water/oil)	< 1
Autoignition temperature	approx. 382°C (approx. 720°F)	Vapour density (air=1)	> 1
Decomposition temperature	not determined	Rate of evaporation (ether=1)	< 1
Upper/lower flammability or explosive limits	not determined	Solubility in water	slightly soluble
Flammability (solid, gas)	not applicable	Oxidising properties	not determined
Explosive properties	not determined		

9.2. Other information

None

SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity**

Refer to sections 10.3 and 10.5.

10.2. Chemical stability

Stable

10.3. Possibility of hazardous reactions

No dangerous reactions known under conditions of normal use.

10.4. Conditions to avoid

Open flames, heat, sparks and red hot surfaces.

10.5. Incompatible materials

Strong oxidizers like liquid Chlorine and concentrated Oxygen, reactive metals

10.6. Hazardous decomposition products

Carbon Monoxide, aldehydes and other toxic fumes.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects**

Primary route of exposure under normal use: Inhalation, skin and eye contact. Personnel with pre-existing dermatitis are generally aggravated by exposure.

Acute toxicity -**Oral:**

Based on available data, the classification criteria are not met.

Substance	Test	Result
Naphtha (petroleum), light alkylate	LD50, rat	> 10000 mg/kg
Isopropanol	LD50, rat	5045 mg/kg
Isopropanol	Human lethal dose	3570 mg/kg

Dermal:

Based on available data, the classification criteria are not met.

Substance	Test	Result
Naphtha (petroleum), light alkylate	LD50, rabbit	> 3160 mg/kg
Isopropanol	LD50, rabbit	12800 mg/kg

Inhalation:

Inhalation of vapor concentrations in excess of 1000 ppm will cause eye and respiratory tract irritation, dizziness, headache and other central nervous system effects.

Substance	Test	Result
Naphtha (petroleum), light alkylate	LC50, rat, 4 h, vapor	> 5.04 mg/l (IUCLID)
Isopropanol	LC50, rat, 6 h, vapor	> 10000 ppm

Skin corrosion/irritation:

Prolonged or repeated skin contact may defat the skin and cause skin irritation.

Substance	Test	Result
Naphtha (petroleum), light alkylate	Skin irritation, rabbit	Moderately irritating (read-across)
Isopropanol	Skin irritation, rabbit	Not irritating (0)

Serious eye damage/irritation:

Direct eye contact may result in eye irritation.

Substance	Test	Result
Naphtha (petroleum), light alkylate	Eye irritation, rabbit	Not irritating
Isopropanol	Eye irritation, rabbit	Moderately irritating

Respiratory or skin sensitisation:

Substance	Test	Result
Naphtha (petroleum), light alkylate	Skin sensitization, guinea pig (OECD 406)	Not sensitizing
Isopropanol	Skin sensitization, guinea pig (OECD 406)	Not sensitizing

Germ cell mutagenicity: Isopropanol: based on available data, the classification criteria are not met. Naphtha (petroleum), light alkylate: expected to be non-mutagenic based on data from similar materials.

Carcinogenicity: As per 29 CFR 1910.1200 (Hazard Communication), this product contains no carcinogens as listed by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC), the Occupational Safety and Health Administration (OSHA) or Regulation (EC) No 1272/2008.

Reproductive toxicity: Isopropanol: based on available data, the classification criteria are not met. Naphtha (petroleum), light alkylate: not expected to cause toxicity. Based on data from similar materials.

STOT-single exposure: May cause drowsiness or dizziness.

STOT-repeated exposure: Isopropanol: based on available data, the classification criteria are not met. Naphtha (petroleum), light alkylate: not expected to cause toxicity. Based on data from similar materials.

Aspiration hazard: Aspiration into the lungs may cause chemical pneumonitis or pulmonary oedema.

Other information: None known

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicological data have not been determined specifically for this product. The information given below is based on a knowledge of the components and the ecotoxicology of similar substances.

12.1. Toxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

Naphtha (petroleum), light alkylate: expected to degrade rapidly in air; expected to be inherently biodegradable. This substance is expected to be removed in a wastewater treatment facility. Isopropanol: readily biodegradable.

12.3. Bioaccumulative potential

Isopropanol: low potential for bioaccumulation.

12.4. Mobility in soil

Liquid. Slightly soluble in water. The hazardous ingredients will rapidly evaporate to the air if released into the environment. Isopropanol: expected to have very high mobility in soils. In determining environmental mobility, consider the product's physical and chemical properties (see Section 9).

12.5. Results of PBT and vPvB assessment

Not available

12.6. Other adverse effects

None known

SECTION 13: DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods**

Incinerate absorbed material with a properly licensed facility. Incinerate pressurized or sealed containers in an approved facility. Check local, state and national/federal regulations and comply with the most stringent requirement. This product is classified as a hazardous waste according to 2008/98/EC.

European List of Wastes code: 15 01 10

SECTION 14: TRANSPORT INFORMATION**14.1. UN number**

ADR/RID/ADN/IMDG/ICAO: UN1950

TDG: UN1950

US DOT: UN1950

14.2. UN proper shipping name

ICAO: Aerosols, Flammable

IMDG: Aerosols

ADR/RID/ADN: Aerosols, *flammable*

TDG:	Aerosols, <i>flammable</i>
US DOT:	Aerosols, <i>flammable</i>
14.3. Transport hazard class(es)	
ADR/RID/ADN/IMDG/ICAO:	2.1
TDG:	2.1
US DOT:	2.1
14.4. Packing group	
ADR/RID/ADN/IMDG/ICAO:	NOT APPLICABLE
TDG:	NOT APPLICABLE
US DOT:	NOT APPLICABLE
14.5. Environmental hazards	
	NO ENVIRONMENTAL HAZARDS
14.6. Special precautions for user	
	NO SPECIAL PRECAUTIONS FOR USER
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
	NOT APPLICABLE
14.8. Other information	
US DOT:	Shipped as Consumer Commodity ORM-D in packaging having a rated capacity gross weight of 66 lb. or less (49 CFR 173.306(i)). ERG NO. 126
IMDG:	EmS. F-D, S-U, Shipped as Limited Quantity
ADR:	Classification code 5F, Tunnel restriction code (E), Shipped as Limited Quantity

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
15.1.1. EU regulations
Authorisations under Title VII: Not applicable
Restrictions under Title VIII: None
Other EU regulations: Directive 75/324/EEC on the approximation of the laws of the Member States relating to aerosol dispensers.
15.1.2. National regulations

US EPA SARA TITLE III	Hazardous Materials Identification System (HMIS)								
312 Hazards: Immediate Fire Pressure Release	<table border="1"> <tr> <td>HEALTH</td> <td>1</td> </tr> <tr> <td>FLAMMABILITY</td> <td>4</td> </tr> <tr> <td>PHYSICAL HAZARD</td> <td>1</td> </tr> <tr> <td>Personal Protection</td> <td>*</td> </tr> </table>	HEALTH	1	FLAMMABILITY	4	PHYSICAL HAZARD	1	Personal Protection	*
HEALTH	1								
FLAMMABILITY	4								
PHYSICAL HAZARD	1								
Personal Protection	*								
313 Chemicals: None TSCA: All chemical components are listed in the TSCA inventory.	4 = Severe Hazard 3 = Serious Hazard 2 = Moderate Hazard 1 = Slight Hazard 0 = Minimal Hazard * = See Section 8								

Other national regulations: National implementation of the EC Directive referred to in section 15.1.1.
15.2. Chemical safety assessment
No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms: ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
 ATE: Acute Toxicity Estimate
 BCF: Bioconcentration Factor
 CLP: Classification Labelling Packaging Regulation (1272/2008/EC)
 ES: Exposure Standard
 GHS: Globally Harmonized System
 ICAO: International Civil Aviation Organization
 IMDG: International Maritime Dangerous Goods
 LC50: Lethal Concentration to 50 % of a test population
 LD50: Lethal Dose to 50% of a test population
 LOEL: Lowest Observed Effect Level
 N/A: Not Applicable
 NA: Not Available
 NOAEL: No Observed Adverse Effect Level
 NOEL: No Observed Effect Level
 OECD: Organization for Economic Co-operation and Development
 PBT: Persistent, Bioaccumulative and Toxic substance
 (Q)SAR: Quantitative Structure-Activity Relationship
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (1907/2006/EC)
 RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
 SDS: Safety Data Sheet
 STEL: Short Term Exposure Limit
 STOT: Specific Target Organ Toxicity
 TDG: Transportation of Dangerous Goods (Canada)
 US DOT: United States Department of Transportation
 vPvB: very Persistent and very Bioaccumulative substance
 WEL: Workplace Exposure Limit
 WHMIS: Workplace Hazardous Materials Information System
 Other abbreviations and acronyms can be looked up at www.wikipedia.org.

Key literature references and sources for data: Commission de la santé et de la sécurité du travail (CSST)
 Chemical Classification and Information Database (CCID)
 European Chemicals Agency (ECHA) - Information on Chemicals
 Hazardous Substances Information System (HSIS)
 National Institute of Technology and Evaluation (NITE)
 Swedish Chemicals Agency (KEMI)
 U.S. National Library of Medicine Toxicology Data Network (TOXNET)

Procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008:

Classification	Classification procedure
Aerosol 1, H222	On basis of components
STOT SE 3, H336	Bridging principle "Dilution"
EUH066	Bridging principle "Dilution"
Aquatic Chronic 2, H411	Calculation method

Relevant H-statements: EUH066: Repeated exposure may cause skin dryness or cracking.
 H222: Extremely flammable aerosol.
 H225: Highly flammable liquid and vapour.
 H229: Pressurized container: May burst if heated.
 H304: May be fatal if swallowed and enters airways.
 H319: Causes serious eye irritation.
 H336: May cause drowsiness or dizziness.
 H411: Toxic to aquatic life with long lasting effects.

Relevant R-phrases: R11: Highly flammable.
 R36: Irritating to eyes.
 R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 R65: Harmful: may cause lung damage if swallowed.
 R66: Repeated exposure may cause skin dryness or cracking.
 R67: Vapours may cause drowsiness and dizziness.

Hazard pictogram names: Flame, health hazard, exclamation mark, environment

Changes to the SDS in this revision: Sections 2.1, 3, 2.2, 3.2, 16.

Further information: None

This information is based solely on data provided by suppliers of the materials used, not on the mixture itself. No warranty is expressed or implied regarding the suitability of the product for the user's particular purpose. The user must make their own determination as to suitability.