

**SAFETY DATA SHEET**

in accordance with REACH (1907/2006/EC, as amended by 2015/830/EU) 29 CFR 1910.1200 and WHMIS 2015

**Revision date:** 10 January 2019

**Initial date of issue:** 30 July 2007

**SDS No.** 173GA-20

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

**1.1. Product identifier**

715 Spraflex® Gold (Aerosol)

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

Surface lubricant for chain drives, open gears, and wire rope.

**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](http://www.chesterton.com)  
E-mail (SDS questions): [ProductMSDSs@chesterton.com](mailto:ProductMSDSs@chesterton.com)  
E-mail: [customer.service@chesterton.com](mailto:customer.service@chesterton.com)

**Supplier:**

Canada: A.W. Chesterton Company Ltd., 889 Fraser Drive,  
Unit 105, Burlington, Ontario L7L 4X8 – Tel. 905-335-5055  
EU: Chesterton International GmbH, Am Lenzenfleck 23,  
D85737 Ismaning, Germany – Tel. +49-89-996-5460

**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)  
NSW Poisons Information Centre (Australia): 13 11 26

**SECTION 2: HAZARDS IDENTIFICATION**

**2.1. Classification of the substance or mixture**

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

Aerosol, Category 1, H222, H229  
Skin irritation, Category 2, H315  
Specific target organ toxicity – single exposure, Category 3, H336  
Hazardous to the aquatic environment, Chronic, Category 2, H411

**2.1.2. Classification according to 29 CFR 1910.1200 / WHMIS 2015 / GHS**

Flammable aerosol, Category 1, H222  
Compressed gas, H280  
Skin irritation, Category 2, H315  
Specific target organ toxicity – single exposure, Category 3, H336  
Hazardous to the aquatic environment, Chronic, Category 2, H411

**2.1.3. Australian statement of hazardous nature**

Hazardous according to criteria of Safe Work Australia.

**2.1.4. Additional information**

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

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

**Hazard statements:** H222 Extremely flammable aerosol.  
 H229 Pressurized container: May burst if heated.  
 H315 Causes skin irritation.  
 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.  
 P260 Do not breathe vapours/spray.  
 P262 Do not get in eyes, on skin, or on clothing.  
 P264 Wash skin thoroughly after handling.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves.  
 P312 Call a POISON CENTER or doctor if you feel unwell.  
 P410/412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

**Supplemental information:** None**2.2.2. Labelling according to 29 CFR 1910.1200 / WHMIS 2015 / GHS****Hazard pictograms:****Signal word:** Danger

**Hazard statements:** H222 Extremely flammable aerosol.  
 H280 Contains gas under pressure; may explode if heated.  
 H315 Causes skin irritation.  
 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.  
 P260 Do not breathe vapours/spray.  
 P264 Wash skin thoroughly after handling.  
 P271 Use only outdoors or in a well-ventilated area.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves.  
 P302/352 IF ON SKIN: Wash with plenty of soap and water.  
 P304/340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P312 Call a POISON CENTER or doctor if you feel unwell.  
 P332/313 If skin irritation occurs: Get medical advice/attention.  
 P362/364 Take off contaminated clothing and wash it before reuse.  
 P403 Store in a well-ventilated place.  
 P410/412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.  
 P501 Dispose of contents/container to an approved waste disposal plant.

**Supplemental information:** None**2.3. Other hazards**

None known

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

Hazardous Ingredients <sup>1</sup>	% Wt.	CAS No./ EC No.	REACH Reg. No.	CLP/GHS Classification
Naphtha (petroleum), hydrotreated light*	25-35	64742-49-0 265-151-9	NA	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 2, H411
Propane	5-10	74-98-6 200-827-9	NA	Flam. Gas 1, H220 Press. Gas (Comp.), H280 Simple Asphyxiant (US/Can.)
Barium bis(dinonylnaphthalenesulphonate)	1-5	25619-56-1 247-132-7	NA	Acute Tox. 4, H302/332 Skin Irrit. 2, H315
Carbon dioxide	1-5	124-38-9 204-696-9	NA	Press. Gas (Comp.), H280
2-(2-Butoxyethoxy)ethanol	0.1-<1	112-34-5 203-961-6	NA	Eye Irrit. 2, H319 STOT SE 3, H336

Other ingredients<sup>1</sup>:

White mineral oil (petroleum)	1-5	8042-47-5 232-455-8	NA	Not classified
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For full text of H-statements: see SECTION 16.

\*Contains less than 0.1 % w/w Benzene.

<sup>1</sup> Classified according to:

- 29 CFR 1910.1200, 1915, 1916, 1917, Mass. Right-to-Know Law (ch. 40, M.G.L..O. 111F)
- 1272/2008/EC, GHS, REACH
- WHMIS 2015
- Safe Work Australia

**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. Take off contaminated clothing and wash it before reuse. 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.**Protection of first-aiders:** No action shall be taken involving any personal risk or without suitable training. Avoid contact with the product while providing aid to the victim. Avoid breathing vapors. See section 8 for recommendations on personal protective equipment.**4.2. Most important symptoms and effects, both acute and delayed**

Direct contact causes eye and skin irritation. Excessive inhalation of vapors will irritate the eyes and respiratory tract and cause dizziness, headache and other central nervous system effects. Prolonged or repeated skin contact may defat the skin and cause skin irritation.

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

Treat symptoms.

**SECTION 5: FIREFIGHTING MEASURES****5.1. Extinguishing media****Suitable extinguishing media:** Carbon dioxide, dry chemical, foam or water fog**Unsuitable extinguishing media:** High volume water jet**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 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. Keep away from sources of ignition - No smoking. If removal of ignition sources is not possible, then flush material away with water.

**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. 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. Utilize exposure controls and personal protection as specified in Section 8. Wash skin thoroughly after handling.

**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 <sup>1</sup>		ACGIH TLV <sup>2</sup>		UK WEL <sup>3</sup>		AUSTRALIA ES <sup>4</sup>	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Naphtha (petroleum), hydrotreated light	–	–	342*	1400*	–	–	–	–
Propane	1,000	1,800	**	–	–	–	**	–
Barium bis(dinonylnaphthalenesulphonate)	–	–	–	–	–	–	–	–
Carbon dioxide	5,000	9,000	5,000 STEL: 30,000	9,000 54,000	5,000 STEL: 15,000	9,150 STEL: 27,400	5,000 STEL: 30,000	9,000 54,000
2-(2-Butoxyethoxy)ethanol <sup>a</sup>	–	–	10 <sup>b</sup>	–	10 STEL: 15	67.5 101.2	–	–
White mineral oil (petroleum)	(oil mist)	5	(oil mist)	5	–	–	(oil mist)	5

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

\*\* Simple asphyxiant.

<sup>a</sup> European Union Occupational Exposure Limit Value: 8-hr TWA, 10 ppm, 67.5 mg/m<sup>3</sup>; STEL, 15 ppm, 101.2 mg/m<sup>3</sup>

<sup>b</sup> Inhalable fraction and vapor

<sup>1</sup> United States Occupational Health & Safety Administration permissible exposure limits

<sup>2</sup> American Conference of Governmental Industrial Hygienists threshold limit values

<sup>3</sup> EH40 Workplace exposure limits, Health & Safety Executive

<sup>4</sup> Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003]

**Biological limit values**

Not available

**Derived No Effect Level (DNEL) according to Regulation (EC) No 1907/2006:****Workers**

Not available

**Predicted No Effect Concentration (PNEC) according to Regulation (EC) No 1907/2006:**

Not available

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

Use only in well-ventilated areas. If exposure limits are exceeded, provide adequate ventilation. Vapors are heavier than air and will collect in low areas.

**8.2.2. Individual protection measures**

**Respiratory protection:** Not normally needed. If exposure limits are exceeded, use a half or full-face respirator with combined dust/organic vapour filter (e.g., EN filter type A-P2).

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

Naphtha (petroleum), hydrotreated light:

Contact type	Glove material	Layer thickness	Breakthrough time *
Full	Nitrile rubber	0.40 mm	> 480 min.
Splash	Nitrile rubber	0.11 mm	> 30 min.

\*Determined according to EN374 standard.

**Eye and face protection:** Safety glasses

**Other:** None

**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**

<b>Physical state</b>	liquid	<b>Odour</b>	solvent odor
<b>Colour</b>	amber	<b>Odour threshold</b>	not determined
<b>Initial boiling point</b>	not determined	<b>Vapour pressure @ 20°C</b>	not determined
<b>Melting point</b>	not determined	<b>% Aromatics by weight</b>	not determined
<b>% Volatile (by volume)</b>	37%	<b>pH</b>	not applicable
<b>Flash point</b>	-9°C (15°F), product only	<b>Relative density</b>	0.87 kg/l
<b>Method</b>	ASTM D93	<b>Weight per volume</b>	7.2 lbs/gal.
<b>Viscosity</b>	150 cps @ 25°C	<b>Coefficient (water/oil)</b>	< 1
<b>Autoignition temperature</b>	not determined	<b>Vapour density (air=1)</b>	> 1
<b>Decomposition temperature</b>	not determined	<b>Rate of evaporation (ether=1)</b>	< 1
<b>Upper/lower flammability or explosive limits</b>	not determined	<b>Solubility in water</b>	insoluble
<b>Flammability (solid, gas)</b>	extremely flammable (propellant)	<b>Oxidising properties</b>	not determined
<b>Explosive properties</b>	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 and red hot surfaces.

**10.5. Incompatible materials**

Strong acids/bases and strong oxidizers like liquid Chlorine and concentrated Oxygen.

**10.6. Hazardous decomposition products**

Chlorides, SO<sub>x</sub>, Oxides of Carbon, Nitrogen, Sulfur and Barium 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 respiratory ailments and dermatitis are generally aggravated by exposure.

**Acute toxicity -**

**Oral:** Based on available data on components, the classification criteria are not met. ATE-mix = 138,889 mg/kg.

Substance	Test	Result
Naphtha (petroleum), hydrotreated light	LD50, rat	> 5,000 mg/kg
Barium bis(dinonylnaphthalenesulphonate)	LD50, rat	1,750 mg/kg (read-across)
2-(2-Butoxyethoxy)ethanol	LD50, mouse	2,410 mg/kg
White mineral oil (petroleum)	LD50, rat	> 5,000 mg/kg

**Dermal:** Based on available data on components, the classification criteria are not met.

Substance	Test	Result
Naphtha (petroleum), hydrotreated light	LD50, rabbit	> 2,000 mg/kg
Barium bis(dinonylnaphthalenesulphonate)	LD50, rabbit	> 10,000 (read-across)
2-(2-Butoxyethoxy)ethanol	LD50, rabbit	2,764 mg/kg
White mineral oil (petroleum)	LD50, rabbit	> 2,000 mg/kg

**Inhalation:** ATE-mix = 833 mg/l (vapor). Excessive inhalation of vapors will irritate the eyes and respiratory tract and cause dizziness, headache and other central nervous system effects.

Substance	Test	Result
Naphtha (petroleum), hydrotreated light	LC50, rat, 4 h	> 23.3 mg/l (vapor)
Propane	LC50, rat, 4 h	658 mg/l
Barium bis(dinonylnaphthalenesulphonate)	LC50, rat, 1 h	> 10 mg/l (vapor, read-across)
2-(2-Butoxyethoxy)ethanol	LC0, rat, 4 h	> 2.1 mg/l
White mineral oil (petroleum)	LC50, rat, 4 h	> 5 mg/l (mist)

**Skin corrosion/irritation:** Causes skin irritation.

Substance	Test	Result
Naphtha (petroleum), hydrotreated light	Skin irritation, rabbit	Irritating
Barium bis(dinonylnaphthalenesulphonate)	Skin irritation, rabbit	Moderately irritating (read-across)

**Serious eye damage/irritation:** May cause mild eye irritation.

Substance	Test	Result
Barium bis(dinonylnaphthalenesulphonate)	Eye irritation	Not irritating (read-across)
2-(2-Butoxyethoxy)ethanol	Eye irritation, rabbit (OECD 405)	Irritating (Eye irritation score 2.33 - 2.78) ECETOC, 1998

**Respiratory or skin sensitisation:**

Substance	Test	Result
Naphtha (petroleum), hydrotreated light	Skin sensitization, guinea pig	Not sensitizing
White mineral oil (petroleum)	Skin sensitization, guinea pig	Not sensitizing

**Germ cell mutagenicity:**

Naphtha (petroleum), hydrotreated light, White mineral oil (petroleum): based on available data, the classification criteria are not met. Barium bis(dinonylnaphthalenesulphonate): In vitro test, bacteria, negative.

**Carcinogenicity:**

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 the European Chemicals Agency (ECHA).

**Reproductive toxicity:**

Naphtha (petroleum), hydrotreated light, White mineral oil (petroleum): based on available data, the classification criteria are not met. Barium bis(dinonylnaphthalenesulphonate): no known significant effects or critical hazards.

**STOT – single exposure:**

May cause drowsiness or dizziness.

**STOT – repeated exposure:**

Reports have associated repeated or prolonged occupational overexposure to all solvents with permanent brain and nervous system damage. Naphtha (petroleum), hydrotreated light, 2-(2-Butoxyethoxy)ethanol, White mineral oil (petroleum): based on available data, the classification criteria are not met.

**Aspiration hazard:**

Not expected to be an aspiration toxicant based on viscosity.

**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. Naphtha (petroleum), hydrotreated light: 48 h EL50 (for daphnia) = 3 mg/l, based on data from similar materials.

**12.2. Persistence and degradability**

Naphtha (petroleum), hydrotreated light: expected to be readily biodegradable, based on data from similar materials; expected to degrade rapidly in air. Semi-Synthetic Hydrocarbon Lubricant Base: not readily biodegradable. 2-(2-Butoxyethoxy)ethanol: readily biodegradable (85%, 28 days).

**12.3. Bioaccumulative potential**

Naphtha (petroleum), hydrotreated light: Octanol/water partition coefficient (log Kow) 2.1 – 5, estimated. White mineral oil (petroleum): Octanol/water partition coefficient (log Kow) > 6. 2-(2-Butoxyethoxy)ethanol: not expected to bioaccumulate (BCF 1.4 - 3.2, QSAR).

**12.4. Mobility in soil**

Liquid. Insoluble in water. In determining environmental mobility, consider the product's physical and chemical properties (see Section 9). Naphtha (petroleum), hydrotreated light: this substance is highly volatile and will rapidly evaporate to the air if released into the environment. 2-(2-Butoxyethoxy)ethanol: expected to have very high mobility in soils.

**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. Containers with product should be incinerated along with appropriate treatment standard for Barium. 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.

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

ADG/ADR/RID/ADN/IMDG/ICAO: UN1950  
TDG: UN1950

**US DOT:** UN1950

**14.2. UN proper shipping name**

**ICAO:** Aerosols, Flammable  
**ADG/IMDG:** Aerosols  
**ADR/RID/ADN:** Aerosols, *flammable*  
**TDG:** Aerosols, *flammable*  
**US DOT:** Aerosols, *flammable*

**14.3. Transport hazard class(es)**

**ADG/ADR/RID/ADN/IMDG/ICAO:** 2.1  
**TDG:** 2.1  
**US DOT:** 2.1

**14.4. Packing group**

**ADG/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 Limited Quantity in packaging having a rated capacity gross weight of 66 lb. or less (49 CFR 173.306(a),(3),(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

**ADG HAZCHEM CODE:** N/A **HIN:** (1)

## 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. Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances (hazard category P3a, Flammable Aerosols; qualifying quantities: 150 t (net), 500 t (net)). Directive 94/33/EC on the protection of young people at work.

#### 15.1.2. National regulations

#### US EPA SARA TITLE III

<b>312 Hazards:</b>	<b>313 Chemicals:</b>
Flammable aerosol	Barium Compound 25619-56-1 1-5%
Compressed gas	<b>TSCA:</b> All chemical components are listed in the TSCA inventory.
Skin irritation	
Specific target organ toxicity – single exposure	

**Other national regulations:** National implementations of the EC Directives 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:** ADG: Australian Dangerous Goods Code  
 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  
 cATpE: Converted Acute Toxicity point Estimate  
 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  
 NOEC: No Observed Effect Concentration  
 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)  
 REL: Recommended Exposure Limit  
 RID: Regulations concerning the International Carriage of Dangerous Goods by Rail  
 SDS: Safety Data Sheet  
 STEL: Short Term Exposure Limit  
 STOT RE: Specific Target Organ Toxicity, Repeated Exposure  
 STOT SE: Specific Target Organ Toxicity, Single Exposure  
 TDG: Transportation of Dangerous Goods (Canada)  
 TWA: Time Weighted Average  
 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](http://www.wikipedia.org).

**Key literature references and sources for data:** Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST)  
 Chemical Classification and Information Database (CCID)  
 European Chemicals Agency (ECHA) - Information on Chemicals  
 Hazardous Chemical Information System (HCIS)  
 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 [CLP]:**

Classification	Classification procedure
Aerosol 1, H222	On basis of test data
Skin Irrit. 2, H315	Calculation method
STOT SE 3, H336	Bridging principle "Dilution"
Aquatic Chronic 2, H411	Calculation method

**Relevant H-statements:** H220: Extremely flammable gas.  
 H222: Extremely flammable aerosol.  
 H225: Highly flammable liquid and vapour.  
 H229: Pressurized container: May burst if heated.  
 H280: Contains gas under pressure; may explode if heated.  
 H302/332: Harmful if swallowed or if inhaled.  
 H304: May be fatal if swallowed and enters airways.  
 H315: Causes skin irritation.  
 H336: May cause drowsiness or dizziness.  
 H411: Toxic to aquatic life with long lasting effects.

**Hazard pictogram names:** Flame, gas cylinder (non-CLP labelling) exclamation mark, environment

**Date of last revision:** 10 January 2019

**Changes to the SDS in this revision:** Sections 2.1, 3, 8.1, 11, 12.2, 12.3, 12.4, 14, 15.1.

**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.