



SAFETY DATA SHEET

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

Revision date: 19 December 2017

Initial date of issue: 13 July 2007

SDS No. 269B-21

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

1.1. Product identifier

ARC S2 (Part B) (GN, GY)

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

ARC Polymer Composite. Repair damage caused by impact, abrasion, erosion or corrosion; rebuild worn areas; fill holes and cracks; provide abrasion resistant surfaces.

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
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

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)
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]

Acute Tox. 4, H302
[Acute Tox. 5, H313]
Skin Corr. 1B, H314
Skin Sens. 1, H317
Repr. 1B, H360D
Aquatic Chronic 3, H412

2.1.2. Classification according to 29 CFR 1910.1200 / WHMIS 2015

Same as section 2.1.1.

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. Any classification in brackets is a GHS building block that was not adopted by the EU, US and Canada in their national implementations of GHS.

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

Danger

Hazard statements:

H302 Harmful if swallowed.
 H313 May be harmful in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H317 May cause an allergic skin reaction.
 H360D May damage the unborn child.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P201 Obtain special instructions before use.
 P260 Do not breathe mist/spray.
 P273 Avoid release to the environment.
 P280 Wear protective gloves, protective clothing and eye/face protection.
 P303/361/353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304/340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305/351/338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P301/330/331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 P310 Immediately call a POISON CENTER or doctor/physician.
 P308/313 IF exposed or concerned: Get medical advice/attention.
 P363 Wash contaminated clothing before reuse.

Supplemental information: None**2.2.2. Labelling according to 29 CFR 1910.1200 / WHMIS 2015****Hazard pictograms:** Same as section 2.2.1.**Signal word:** Same as section 2.2.1.**Hazard statements:** Same as section 2.2.1.**Precautionary statements:**

P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P260 Do not breathe mist/spray.
 P264 Wash hands, face and any exposed skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P272 Contaminated work clothing must not be allowed out of the workplace.
 P273 Avoid release to the environment.
 P280 Wear protective gloves, protective clothing and eye/face protection.
 P303/361/353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304/340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305/351/338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P301/330/331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 P310 Immediately call a POISON CENTER or doctor/physician.
 P308/313 IF exposed or concerned: Get medical advice/attention.
 P363 Wash contaminated clothing before reuse.
 P405 Store locked up.
 P501 Dispose of contents/container to an approved waste disposal plant.

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

The safety and health hazards are detailed separately for Part A and Part B. Upon machining, refer to the precautions in the safety data sheets for Part A and Part B.

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

Hazardous Ingredients ¹	% Wt.	CAS No./ EC No.	REACH Reg. No.	CLP/GHS Classification
Benzyl alcohol	17-35	100-51-6 202-859-9	01-211949 2630-38	Acute Tox. 4, H302/332 Eye Irrit. 2, H319
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	17-35	2855-13-2 220-666-8	01-2119514 687-32	Acute Tox. 4, H302/312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412
3-Aminomethyl-3,5,5-trimethylcyclohexylamine, reaction products with bisphenol A diglycidyl ether homopolymer	8-24	68609-08-5 Polymer	01-211996 5165-33**	Acute Tox. 5, H303 Skin Corr. 1B, H314 Skin Sens. 1, H317 Eye Dam. 1, H318 Aquatic Chronic 3, H412
N-methyl-2-pyrrolidone***	0.1-0.5	872-50-4 212-828-1	01-211947 2430-46	Flam. Liq. 4, H227 Repr. 1B, H360D (≥ 5%) Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Skin Sens. 1A, H317
Fatty acids, C18, unsatd., dimers, reaction products with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine	0.1-0.3	162627-17-0 605-296-0	01-211997 0640-38	
N-(3-(trimethoxysilyl)propyl)ethylenediamine	0.09 – 0.14	1760-24-3 217-164-6	01-211997 0215-39	Acute Tox. 4, H332 Eye Dam. 1, H318 Skin Sens. 1, H317

Other ingredients:

Silicon carbide	15-25	409-21-2 206-991-8	NA	Not classified*
Silica (Quartz)	1-3	14808-60-7 238-878-4	NA	Not classified*

*Substance with a workplace exposure limit.

**Covered by CAS # 38294-64-3

***Included on the EU Candidate List of substances of very high concern for Authorisation.

For full text of H-statements: see SECTION 16.

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, 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.**Skin contact:** Flood area with water while removing contaminated clothing. Wash clothing before reuse. Consult physician.**Eye contact:** Flush eyes for at least 30 minutes with large amounts of water. Consult physician.**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. See section 8 for recommendations on personal protective equipment.**4.2. Most important symptoms and effects, both acute and delayed**

Direct contact will cause burns to skin, eyes and mucous membranes. Harmful if swallowed. May be harmful in contact with skin. High vapor concentrations may cause respiratory tract irritation. May cause allergic skin sensitization.

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: No data available

5.2. Special hazards arising from the substance or mixture

None

5.3. Advice for firefighters

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

Flammability Classification: not determined

HAZCHEM Emergency Action Code: 2 Z

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

Scoop up and transfer to a suitable container for disposal. Flush floor with dilute (5%) Acetic Acid. Collect rinsate for proper 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**

Do not breathe mist/spray. Utilize exposure controls and personal protection as specified in Section 8. Remove contaminated clothing immediately. Wash clothing before reuse. Contaminated leather including shoes cannot be decontaminated and should be discarded. Keep container closed when not in use. Avoid creating and breathing dust during removal, drilling, grinding, sawing or sanding.

7.2. Conditions for safe storage, including any incompatibilities

Store in cool, dry area.

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
Benzyl alcohol	–	–	–	–	–	–	–	–
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	–	–	–	–	–	–	–	–
3-Aminomethyl-3,5,5-trimethylcyclohexylamine, reaction products with bisphenol A diglycidyl ether homopolymer	–	–	–	–	–	–	–	–
N-methyl-2-pyrrolidone	–	–	–	–	10 (skin) STEL: 20	40 STEL: 80	–	–
Fatty acids, C18, unsatd., dimers, reaction products with N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine	–	–	–	–	–	–	–	–
N-(3-(trimethoxysilyl)propyl)ethylene diamine	–	–	–	–	–	–	–	–
Silicon carbide	(total) (resp)	15 5	(total) (resp)	10 3	(total) (resp)	10 4	–	10 (insp)
Silica (Quartz)	(resp)	0.1	(resp)	0.025	(resp)	0.1	(resp)	0.1

¹ United States Occupational Health & Safety Administration permissible exposure limits² American Conference of Governmental Industrial Hygienists threshold limit values³ EH40 Workplace exposure limits, Health & Safety Executive⁴ Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003]

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

Substance	Route of exposure	Potential health effects	DNEL
Benzyl alcohol	Inhalation	Acute effects, local / Chronic effects, local	No data available
		Acute effects, systemic	110 mg/m ³
		Chronic effects, systemic	22 mg/m ³
	Dermal	Acute effects, local / Chronic effects, local	No data available
		Acute effects, systemic	40 mg/kg bw/day
		Chronic effects, systemic	8 mg/kg bw/day
N-(3-(trimethoxysilyl)propyl)ethylenediamine	Inhalation	Acute effects, local / Chronic effects, local	No hazard identified
		Chronic effects, systemic	35.3 mg/m ³
		Acute effects, systemic	Not available
	Dermal	Acute effects, local / Chronic effects, local	Not available
		Acute effects, systemic	5 mg/kg bw/day
		Chronic effects, systemic	5 mg/kg bw/day

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

Substance	Environmental protection target	PNEC
Benzyl alcohol	Fresh water	1 mg/l
	Marine water	0.1 mg/l
	Water, intermittent release	2.3 mg/l
	Freshwater sediments	5.27 mg/kg
	Marine sediments	0.527 mg/kg
	Microorganisms in sewage treatment	39 mg/l
	Soil (agricultural)	0.456 mg/kg bw/day
	Food chain	No hazard identified
N-(3-(trimethoxysilyl)propyl)ethylenediamine	Fresh water	0.062 mg/l
	Marine water	0.0062 mg/l
	Freshwater sediments	0.048 mg/kg
	Marine sediments	0.0048 mg/kg
	Microorganisms in sewage treatment	25 mg/l
	Soil (agricultural)	0.0075 mg/kg

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

Good general mechanical ventilation. If it is necessary to alter the final cured product such that dust may be generated, use adequate dust extraction or damp down.

8.2.2. Individual protection measures

Respiratory protection: Not normally needed. If exposure limits are exceeded or product is sprayed, utilize suitable respiratory equipment.

Protective gloves: Chemical resistant gloves (e.g., butyl rubber, 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	gritty paste	Odour	amine
Colour	red or yellow	Odour threshold	not determined
Initial boiling point	> 200°C (392°F)	Vapour pressure @ 20°C	not determined
Melting point	not determined	% Aromatics by weight	0%
% Volatile (by volume)	< 1%	pH	not applicable
Flash point	> 100°C (> 212°F)	Relative density	1.4 kg/l
Method	PM Closed Cup	Weight per volume	11.3 lbs/gal.
Viscosity	5800 cps @ 25°C	Coefficient (water/oil)	not determined
Autoignition temperature	not determined	Vapour density (air=1)	> 1
Decomposition temperature	not determined	Rate of evaporation (ether=1)	< 1
Upper/lower flammability or explosive limits	not applicable	Solubility in water	not determined
Flammability (solid, gas)	not applicable	Oxidising properties	not determined
Explosive properties	not applicable		

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 high temperatures.

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

Carbon Monoxide, Carbon Dioxide, NOx, 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 allergies, eczema or skin conditions may be aggravated by exposure.

Acute toxicity -**Oral:**

Harmful if swallowed. ATE-mix = 1440 – 2601 mg/kg.

Substance	Test	Result
Benzyl alcohol	LD50, rat	1230 mg/kg
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	LD50, rat	1030 mg/kg
Silicon carbide	NOAEL, rat	2000 mg/kg
N-methyl-2-pyrrolidone	LD50, rat	3598 mg/kg
3-Aminomethyl-3,5,5-trimethylcyclohexylamine, reaction products with bisphenol A diglycidyl ether homopolymer	LD50, rat	3100 mg/kg

Dermal: May be harmful in contact with skin. ATE-mix = 2759 - 5520 mg/kg

Substance	Test	Result
Benzyl alcohol	LD50, rabbit	2000 mg/kg
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	LD50, rat	1840 mg/kg
Silicon carbide	NOAEL, rat	2000 mg/kg
N-methyl-2-pyrrolidone	LD50, rabbit	8000 mg/kg

Inhalation: Based on available data on components, the classification criteria are not met. ATE-mix = 12.03 mg/l (mist). ATE-mix = 31.6 mg/l (vapor). High vapor concentrations may cause respiratory tract irritation.

Substance	Test	Result
Benzyl alcohol	LC50, rat, 4 h	11 mg/l (vapor)
Benzyl alcohol	LC50, rat, 4 h	> 4.178 mg/l (mist)
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	LC50, rat, 4 h	> 5.01 mg/l (mist, analytical)
N-methyl-2-pyrrolidone	LC50, rat, 4 h	> 5.1 mg/l (mist)

Skin corrosion/irritation: Causes burns.

Substance	Test	Result
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	Skin irritation, rabbit	Corrosive

Serious eye damage/irritation: Causes serious eye damage.

Substance	Test	Result
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	Eye irritation, rabbit, OECD 405	Corrosive

Respiratory or skin sensitisation: May cause allergic skin sensitization.

Substance	Test	Result
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	Skin sensitization, guinea pig, OECD 406	Sensitizing
N-(3-(trimethoxysilyl)propyl)ethylenediamine	Skin sensitization, guinea pig, OECD 406	Sensitizing

Germ cell mutagenicity: Benzyl alcohol, 3-Aminomethyl-3,5,5-trimethylcyclohexylamine, Silicon carbide, N-methyl-2-pyrrolidone, N-(3-(trimethoxysilyl)propyl)ethylenediamine: based on available data, the classification criteria are not met.

Carcinogenicity: The International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP) have classified inhaled silica as a human carcinogen. The silica in this product does not separate from the mixture or in of itself become air-borne, therefore it does not present a hazard in normal use. Benzyl alcohol, Silicon carbide, N-methyl-2-pyrrolidone: based on available data, the classification criteria are not met.

Reproductive toxicity: N-methyl-2-pyrrolidone has produced reproductive/teratogenic effects in animal studies.

STOT-single exposure: 3-Aminomethyl-3,5,5-trimethylcyclohexylamine, Silicon carbide: based on available data, the classification criteria are not met. N-methyl-2-pyrrolidone: May cause respiratory irritation.

STOT-repeated exposure: 3-Aminomethyl-3,5,5-trimethylcyclohexylamine, Silicon carbide, N-methyl-2-pyrrolidone: based on available data, the classification criteria are not met.

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

Other information: WARNING: This product contains a chemical(s) known to the State of California to cause birth defects or other reproductive harm.

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

3-Aminomethyl-3,5,5-trimethylcyclohexylamine is harmful to aquatic organisms.

12.2. Persistence and degradability

3-Aminomethyl-3,5,5-trimethylcyclohexylamine: may biodegrade, not readily biodegradable. Benzyl alcohol, N-methyl-2-pyrrolidone: readily biodegradable.

12.3. Bioaccumulative potential

Benzyl alcohol: low potential for bioaccumulation (log Kow: 1.1). 3-Aminomethyl-3,5,5-trimethylcyclohexylamine: low potential for bioaccumulation (BCF (QSAR): 3.16). N-methyl-2-pyrrolidone: not expected to bioaccumulate (log Kow < 1).

12.4. Mobility in soil

Paste. Insoluble in water. In determining environmental mobility, consider the product's physical and chemical properties (see Section 9). Benzyl alcohol, N-methyl-2-pyrrolidone: expected to have very high mobility in soils. 3-Aminomethyl-3,5,5-trimethylcyclohexylamine: log Koc (QSAR) = 2.97.

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**

Unreacted components are a special waste (classified as hazardous according to 2008/98/EC). Combine resin and curative. The final cured material is considered nonhazardous. Landfill sealed containers with a properly licensed facility. May be incinerated at an appropriate facility. Check local, state and national/federal regulations and comply with the most stringent requirement.

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

ADR/RID/ADN/IMDG/ICAO:	UN2289
TDG:	UN2289
US DOT:	UN2289

14.2. UN proper shipping name

ADR/RID/ADN/IMDG/ICAO:	ISOPHORONEDIAMINE SOLUTION
TDG:	ISOPHORONEDIAMINE SOLUTION
US DOT:	ISOPHORONEDIAMINE SOLUTION

14.3. Transport hazard class(es)

ADR/RID/ADN/IMDG/ICAO:	8
TDG:	8
US DOT:	8

14.4. Packing group

ADR/RID/ADN/IMDG/ICAO:	III
TDG:	III
US DOT:	III

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 MARPOL 73/78 and the IBC Code

NOT APPLICABLE

14.8. Other information

US DOT: ERG NO. 153
 May be shipped as Limited Quantities in packaging having a rated capacity gross weight of 66 lb. or less and in inner packages not over 5 Liters (49 CFR 173.154 (b,2))

IMDG: EmS F-A, S-B, IMDG segregation group 18-Alkalis

ADR: Classification code C7, Tunnel restriction code (E)

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 94/33/EC on the protection of young people at work.

15.1.2. National regulations

US EPA SARA TITLE III

312 Hazards:

Immediate
Delayed

313 Chemicals:

N-methyl-2-pyrrolidone 872-50-4 0.1 – 0.5%

Other national regulations: National implementation 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: 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.

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
Acute Tox. 4, H302	Calculation method
Acute Tox. 5, H313	Calculation method
Skin Corr. 1B, H314	Calculation method
Skin Sens. 1, H317	Bridging principle "Dilution"
Aquatic Chronic 3, H412	Calculation method

Relevant H-statements: H227: Combustible liquid.
H302: Harmful if swallowed.
H303: May be harmful if swallowed.
H312: Harmful in contact with skin.
H313: May be harmful in contact with skin.
H314: Causes severe skin burns and eye damage.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H319: Causes serious eye irritation.
H332: Harmful if inhaled.
H335: May cause respiratory irritation.
H360D: May damage the unborn child.
H412: Harmful to aquatic life with long lasting effects.

Hazard pictogram names: Corrosion, exclamation mark

Changes to the SDS in this revision: Sections 2.1, 2.2, 3, 4.1, 7.1, 11, 15.1, 16.

Revision date: 19 December 2017

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.