

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : STRONGARM
Product code : F040
Type of product : Technical product

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

1.2.1. Relevant identified uses

Main use category : Professional use
Industrial/Professional use spec : For professional use only
Use of the substance/mixture : Hard surface cleaner

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

SELDEN RESEARCH LIMITED STADEN LANE, BUXTON, DERBYSHIRE, SK17 9RZ, UNITED KINGDOM
Tel: 01298 26226 Fax: 01298 26540 Email: safety@selden.co.uk

1.4. Emergency telephone number

: Mon to Fri 8.30am to 5.00pm - 01298 26226

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin Corr. 1B H314

Full text of hazard classes and H-statements : see section 16

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) : Danger
Hazardous ingredients : sodium hydroxide, caustic soda
Hazard statements (CLP) : H314 - Causes severe skin burns and eye damage
Precautionary statements (CLP) : P280 - Wear eye protection, protective gloves
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P315 - Get immediate medical advice/attention
P102 - Keep out of reach of children

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Safety Data Sheet

Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Butoxydiglycol	(CAS No) 112-34-5 (EC no) 203-961-6 (EC index no) 603-096-00-8 (REACH-no) 01-2119475104-44	1 - 5	Xi; R36	Eye Irrit. 2, H319
Alcohol Alkoxylate	(CAS No) 166736-08-9	1 - 5	Xn; R22 Xi; R41	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
sodium hydroxide, caustic soda	(CAS No) 1310-73-2 (EC no) 215-185-5 (EC index no) 011-002-00-6 (REACH-no) 01-2119457892-27	1 - 5	C; R35	Skin Corr. 1A, H314

Full text of R- and H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Get medical advice/attention if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash with plenty of soap and water. Take off immediately all contaminated clothing and wash it before reuse.
First-aid measures after eye contact	: Immediately rinse with water for a prolonged period while holding the eyelids wide open. Get immediate medical advice/attention.
First-aid measures after ingestion	: Do NOT induce vomiting. Rinse mouth. Drink plenty of water. Get medical advice/attention.

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

Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Burns.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Burns.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Corrosive vapours.

5.3. Advice for firefighters

No additional information available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage.
Methods for cleaning up	: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes.

Safety Data Sheet

Hygiene measures : Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Does not require any specific or particular technical measures.
 Storage conditions : Keep container closed when not in use.
 Incompatible products : Oxidizing agent. Strong acids.
 Incompatible materials : Metals.
 Special rules on packaging : Keep only in original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Butoxydiglycol (112-34-5)		
Denmark	Local name	Butyldiglycol (2007)
Denmark	Grænseværdie (langvarig) (mg/m ³)	67,5 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	10 ppm
Denmark	Anmærkninger (DK)	E
Ireland	Local name	2-(2-Butoxyethoxy)ethanol
Ireland	OEL (8 hours ref) (mg/m ³)	67,5 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	10 ppm
Ireland	OEL (15 min ref) (mg/m ³)	101.2 mg/m ³
Ireland	OEL (15 min ref) (ppm)	15 ppm
Ireland	Notes (IE)	IOELV
Netherlands	Local name	2-(2-Butoxyethoxy)ethanol
Netherlands	Grenswaarde TGG 8H (mg/m ³)	50 mg/m ³
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	100 mg/m ³
Netherlands	Remark (MAC)	H
United Kingdom	Local name	2-(2-Butoxyethoxy)ethanol
United Kingdom	WEL TWA (mg/m ³)	67,5 mg/m ³
United Kingdom	WEL TWA (ppm)	10 ppm
United Kingdom	WEL STEL (mg/m ³)	101.2 mg/m ³
United Kingdom	WEL STEL (ppm)	15 ppm
sodium hydroxide, caustic soda (1310-73-2)		
Denmark	Local name	Natriumhydroxid
Denmark	Grænseværdie (langvarig) (mg/m ³)	2 mg/m ³
Denmark	Anmærkninger (DK)	L
Ireland	Local name	Sodium hydroxide
Ireland	OEL (15 min ref) (mg/m ³)	2 mg/m ³
United Kingdom	Local name	Sodium hydroxide
United Kingdom	WEL STEL (mg/m ³)	2 mg/m ³

8.2. Exposure controls

Materials for protective clothing : Not required for normal conditions of use
 Hand protection : Protective gloves
 Eye protection : Safety glasses
 Skin and body protection : Not required for normal conditions of use
 Respiratory protection : Not required for normal conditions of use



Safety Data Sheet

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state	: Liquid
Appearance	: Liquid.
Colour	: Colourless.
Odour	: characteristic.
Odour threshold	: No data available
pH	: 13
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.05
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity**10.1. Reactivity**

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

metals.

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information**11.1. Information on toxicological effects**

Acute toxicity	: Not classified
Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 13
Serious eye damage/irritation	: Serious eye damage, category 1, implicit pH: 13
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified

Safety Data Sheet

Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information**12.1. Toxicity**

Butoxydiglycol (112-34-5)	
LC50 fish 1	1300 mg/l
EC50 other aquatic organisms 1	> 1000 mg/l EC50 waterflea (48 h)
EC50 other aquatic organisms 2	> 100 mg/l IC50 algea (72 h) mg/l
Alcohol Alkoxyate (166736-08-9)	
LC50 fish 1	> 10 - 100 mg/l
EC50 Daphnia 1	> 10 - 100 mg/l
ErC50 (other aquatic plants)	> 10 - 100 mg/l
sodium hydroxide, caustic soda (1310-73-2)	
LC50 fish 1	> 35 mg/l
EC50 other aquatic organisms 1	> 33 mg/l
EC50 other aquatic organisms 2	IC50 algea (72 h) mg/l

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Butoxydiglycol (112-34-5)	
Log Pow	0.3 - 4.69
sodium hydroxide, caustic soda (1310-73-2)	
Log Pow	-3.88

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

No additional information available

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR)	: 1760
UN-No. (IMDG)	: 1760
UN-No. (IATA)	: 1760

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: CORROSIVE LIQUID, N.O.S.
Proper Shipping Name (IMDG)	: CORROSIVE LIQUID, N.O.S.
Proper Shipping Name (IATA)	: CORROSIVE LIQUID, N.O.S.
Transport document description (ADR)	: UN 1760 CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE), 8, III, (E)
Transport document description (IMDG)	: UN 1760 CORROSIVE LIQUID, N.O.S., 8, III

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

Transport hazard class(es) (ADR)	: 8
Danger labels (ADR)	: 8

Safety Data Sheet



IMDG

Transport hazard class(es) (IMDG) : 8
 Danger labels (IMDG) : 8



IATA

Transport hazard class(es) (IATA) : 8
 Hazard labels (IATA) : 8



14.4. Packing group

Packing group (ADR) : III
 Packing group (IMDG) : III
 Packing group (IATA) : III

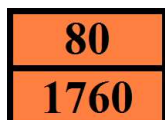
14.5. Environmental hazards

Dangerous for the environment : No
 Marine pollutant : No
 Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : C9
 Special provisions (ADR) : 274
 Limited quantities (ADR) : 5I
 Excepted quantities (ADR) : E1
 Packing instructions (ADR) : P001, IBC03, LP01, R001
 Mixed packing provisions (ADR) : MP19
 Portable tank and bulk container instructions (ADR) : T7
 Portable tank and bulk container special provisions (ADR) : TP1, TP28
 Tank code (ADR) : L4BN
 Vehicle for tank carriage : AT
 Transport category (ADR) : 3
 Special provisions for carriage - Packages (ADR) : V12
 Hazard identification number (Kemler No.) : 80
 Orange plates :



Tunnel restriction code (ADR) : E

Safety Data Sheet

EAC code : 2X
 APP code : B

- Transport by sea

Special provisions (IMDG) : 223, 274
 Limited quantities (IMDG) : 5 L
 Excepted quantities (IMDG) : E1
 Packing instructions (IMDG) : P001, LP01
 IBC packing instructions (IMDG) : IBC03
 Tank instructions (IMDG) : T7
 Tank special provisions (IMDG) : TP1, TP28
 EmS-No. (Fire) : F-A
 EmS-No. (Spillage) : S-B
 Stowage category (IMDG) : A

- Air transport

PCA Excepted quantities (IATA) : E1
 PCA Limited quantities (IATA) : Y841
 PCA limited quantity max net quantity (IATA) : 1L
 PCA packing instructions (IATA) : 852
 PCA max net quantity (IATA) : 5L
 CAO packing instructions (IATA) : 856
 CAO max net quantity (IATA) : 60L
 Special provisions (IATA) : A3
 ERG code (IATA) : 8L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IBC code : Not applicable.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1. EU-Regulations**

Contains no REACH substances with Annex XVII restrictions
 Contains no substance on the REACH candidate list
 Contains no REACH Annex XIV substances

15.1.2. National regulations**Germany**

VwVwS Annex reference : Water hazard class (WGK) 1, slightly hazardous to water (Classification according to VwVwS, Annex 4)
 12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed
 SZW-lijst van mutagene stoffen : None of the components are listed
 NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed
 NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed
 NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Safety Data Sheet

Full text of R-, H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H319	Causes serious eye irritation

SDS EU (EXPORT PREPARE)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product