

Buckleberry Limited

screen print supply company

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SAFETY DATA SHEET BI-SOLVE Screenwash

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

1.1. Product identifier

Product name BI-SOLVE Screenwash

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

Identified uses As a wash-off solvent in printing processes.

Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier Buckleberry Ltd.,
Buckleberry House,
9, Hales Road, Lower Wortley,
Leeds, West Yorkshire,
LS12 4PL
0113 279 7779 (08:00-16:30)
0113 279 7770
sales@buckleberry.co.uk

1.4. Emergency telephone number

Emergency telephone Buckleberry Ltd 0113 279 7779 (08:00-16:30)

National emergency telephone number 999 / 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Flam. Liq. 3 - H226

Health hazards Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Dam. 1 - H318

Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) Xn; R20. Xi; R41, R38. R10

Human health In case of overexposure, organic solvents may depress the central nervous system causing dizziness and intoxication, and at very high concentrations unconsciousness and death. Gas or vapour is harmful on prolonged exposure or in high concentrations. Organic solvents may be absorbed into the body by inhalation and ingestion. May cause serious eye damage. Causes skin irritation.

Physicochemical Heating may generate flammable vapours. Vapours may form explosive mixtures with air.

2.2. Label elements

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Pictogram



Signal word

Danger

Hazard statements

H226 Flammable liquid and vapour.
 H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H332 Harmful if inhaled.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P261 Avoid breathing vapour/spray.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER/doctor.
 P501 Dispose of contents/container in accordance with national regulations.

Contains

CYCLOHEXANONE, 2-BUTOXYETHANOL, Alcohol Ethoxylate with 6.5 MEO

Detergent labelling

< 5% non-ionic surfactants

Supplementary precautionary statements

P233 Keep container tightly closed.
 P240 Ground/bond container and receiving equipment.
 P241 Use explosion-proof electrical equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P264 Wash contaminated skin thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P312 Call a POISON CENTER/doctor if you feel unwell.
 P321 Specific treatment (see medical advice on this label).
 P332+P313 If skin irritation occurs: Get medical advice/attention.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.
 P403+P235 Store in a well-ventilated place. Keep cool.

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

CYCLOHEXANONE	30-60%
CAS number: 108-94-1	EC number: 203-631-1
	REACH registration number: 01-2119453616-35-XXXX
Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 3 - H226	Xn; R20. R10
Acute Tox. 4 - H332	

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2-BUTOXYETHANOL		10-30%
CAS number: 111-76-2	EC number: 203-905-0	REACH registration number: 01-2119475108-36-XXXX
Classification		Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302	Xn; R20/21/22. Xi; R36/38	
Acute Tox. 4 - H312		
Acute Tox. 4 - H332		
Skin Irrit. 2 - H315		
Eye Irrit. 2 - H319		
2-methoxy-1-methylethyl acetate		10-30%
CAS number: 108-65-6	EC number: 203-603-9	REACH registration number: 01-2119475791-29-XXXX
Classification		Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 3 - H226	R10	
4-hydroxy-4-methylpentan-2-one		10-30%
CAS number: 123-42-2	EC number: 204-626-7	REACH registration number: 01-2119473975-21-XXXX
Classification		Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 3 - H226	Xi; R36/37. R10	
Eye Irrit. 2 - H319		
STOT SE 3 - H335		
Alcohol Ethoxylate with 6.5 MEO		1-5%
CAS number: 68439-46-3		
Classification		Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302	Xn; R22. Xi; R41	
Eye Dam. 1 - H318		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move affected person to fresh air at once. Keep affected person warm and at rest. Place unconscious person on their side in the recovery position and ensure breathing can take place. Get medical attention immediately. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration.
Ingestion	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention immediately. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.
Skin contact	Remove affected person from source of contamination. Take off immediately all contaminated clothing and wash it before reuse. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.

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Eye contact Remove any contact lenses and open eyelids wide apart. Wash with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

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

Inhalation Harmful by inhalation. Overexposure to organic solvents may depress the central nervous system, causing dizziness and intoxication and, at very high concentrations, unconsciousness and death.

Ingestion Diarrhoea. May cause nausea, headache, dizziness and intoxication.

Skin contact This product is rapidly absorbed through the skin and may cause symptoms similar to those of ingestion. Irritating to skin.

Eye contact Causes serious eye damage.

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

Notes for the doctor No specific recommendations. Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with the following media: Carbon dioxide (CO₂). Alcohol-resistant foam. Dry chemicals, sand, dolomite etc.

Unsuitable extinguishing media Do not use water, if avoidable.

5.2. Special hazards arising from the substance or mixture

Specific hazards The product is flammable. Heating may generate flammable vapours. No unusual fire or explosion hazards noted.

Hazardous combustion products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting Avoid breathing fire gases or vapours. Containers close to fire should be removed or cooled with water. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate area. Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Avoid contact with skin or inhalation of spillage, dust or vapour. Absorb in vermiculite, dry sand or earth and place into containers. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections

Reference to other sections For waste disposal, see Section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Keep away from heat, sparks and open flame. Avoid spilling. Avoid inhalation of vapours/spray and contact with skin and eyes. Provide adequate ventilation. Use approved respirator if air contamination is above an acceptable level. Contaminated rags and cloths must be put in fireproof containers for disposal. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from oxidising materials, heat and flames. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Storage class Flammable liquid storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

CYCLOHEXANONE

Long-term exposure limit (8-hour TWA): WEL 10 ppm 41 mg/m³

Short-term exposure limit (15-minute): WEL 20 ppm 82 mg/m³

Sk

2-BUTOXYETHANOL

Long-term exposure limit (8-hour TWA): WEL 25 ppm 123 mg/m³

Short-term exposure limit (15-minute): WEL 50 ppm 246 mg/m³

Sk

2-methoxy-1-methylethyl acetate

Long-term exposure limit (8-hour TWA): WEL 50 ppm 274 mg/m³

Short-term exposure limit (15-minute): WEL 100 ppm 548 mg/m³

Sk

4-hydroxy-4-methylpentan-2-one

Long-term exposure limit (8-hour TWA): WEL 50 ppm 241 mg/m³

Short-term exposure limit (15-minute): WEL 75 ppm 362 mg/m³

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

2-BUTOXYETHANOL (CAS: 111-76-2)

DNEL

Industry - Dermal; Long term systemic effects: 75 mg/kg/day
 Industry - Inhalation; Long term systemic effects: 20 ppm
 Industry - Dermal; Short term systemic effects: 89 mg/kg/day
 Industry - Inhalation; Short term systemic effects: 135 ppm
 Industry - Inhalation; Short term local effects: 50 ppm

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PNEC	- Fresh water; 8.8 mg/l
	- Marine water; 0.88 mg/l
	- STP; 463 mg/l
	- Sediment (Freshwater); 34.6 mg/kg
	- Sediment (Marinewater); 3.46 mg/kg
	- Soil; 2.8 mg/kg

2-methoxy-1-methylethyl acetate (CAS: 108-65-6)

DNEL	Industry - Inhalation; Long term systemic effects: 275 mg/m ³
	Consumer - Dermal; Long term systemic effects: 54.8 mg/kg/day
	Industry - Dermal; Long term systemic effects: 153.5 mg/kg/day
	Consumer - Inhalation; Long term systemic effects: 33 mg/m ³
	Consumer - Oral; Long term systemic effects: 1.67 mg/kg/day

PNEC	- Marine water; 0.0635 mg/l
	- STP; 100 mg/l
	- Fresh water; 0.635 mg/l
	- Intermittent release; 6.35 mg/l
	- Sediment (Freshwater); 3.29 mg/kg
	- Soil; 0.29 mg/kg
	- Sediment (Marinewater); 0.329 mg/kg

4-hydroxy-4-methylpentan-2-one (CAS: 123-42-2)

DNEL	Workers - Inhalation; Short term local effects: 240 mg/m ³
	Workers - Inhalation; Long term systemic effects: 66.4 mg/m ³
	Workers - Dermal; Long term systemic effects: 9.4 mg/kg/day

PNEC	- Fresh water; 2 mg/l
	- Marine water; 0.2 mg/l
	- Intermittent release; 1 mg/l
	- STP; 82 mg/l
	- Sediment (Freshwater); 9.06 mg/kg/day
	- Sediment (Marinewater); 0.91 mg/kg/day
	- Soil; 0.63 mg/kg/day

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Use explosion-proof electrical, ventilating and lighting equipment.

Eye/face protection

The following protection should be worn: Chemical splash goggles or face shield.

Hand protection

Wear protective gloves made of the following material: Neoprene. Nitrile rubber. Frequent changes are recommended.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact.

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Hygiene measures	Ensure an eye bath is located nearby. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. Do not smoke in work area. Do not eat, drink or smoke when using this product.
Respiratory protection	Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Straw.
Odour	Ketonic. Glycol ether.
Odour threshold	No information available.
pH	Not applicable.
Melting point	Not applicable.
Initial boiling point and range	145 - 175°C @ 760 mm Hg
Flash point	>42°C CC (Closed cup).
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 1.1 g/100 g Upper flammable/explosive limit: 10.6 g/100 g
Vapour pressure	>0.01 kPa @ 20°C
Vapour density	>1
Relative density	~ 0.94 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Forms an emulsion with water.
Partition coefficient	No information available.
Auto-ignition temperature	>230°C
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	Not applicable.
Oxidising properties	Not applicable.
Comments	Information declared as "Not available" or "Not applicable" is not considered to be relevant to the implementation of the proper control measures.

9.2. Other information

Volatile organic compound	This product contains a maximum VOC content of 911 g/litre.
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SECTION 10: Stability and reactivity

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10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents. Strong reducing agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Fire creates: Vapours/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

ATE oral (mg/kg) 4,052.62

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

ATE dermal (mg/kg) 4,594.82

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Harmful by inhalation.

ATE inhalation (gases ppm) 6,298.99

ATE inhalation (vapours mg/l) 15.4

ATE inhalation (dusts/mists mg/l) 2.1

Skin corrosion/irritation

Animal data Irritating.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Does not contain any substances known to be mutagenic.

Carcinogenicity

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Carcinogenicity	Does not contain any substances known to be carcinogenic.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Does not contain any substances known to be toxic to reproduction.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Based on available data the classification criteria are not met.
<u>Aspiration hazard</u>	
Aspiration hazard	Based on available data the classification criteria are not met.
Inhalation	Harmful by inhalation. The product contains organic solvents. Overexposure may depress the central nervous system, causing dizziness and intoxication. May cause respiratory system irritation.
Ingestion	May cause discomfort if swallowed. May cause nausea, headache, dizziness and intoxication.
Skin contact	Contains components which may penetrate the skin. Repeated exposure may cause skin dryness or cracking. Irritating to skin.
Eye contact	May cause serious eye damage.
Route of entry	Inhalation Skin absorption Ingestion. Skin and/or eye contact
Target organs	Central nervous system Brain Eyes Respiratory system, lungs Skin
Medical symptoms	Headache. Fatigue. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Unconsciousness, possibly death. Diarrhoea. Dryness and/or cracking. Irritation of eyes and mucous membranes. Irritation of nose, throat and airway. Skin irritation. May cause blurred vision and serious eye damage.

SECTION 12: Ecological Information

Ecotoxicity The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.1. Toxicity

Acute toxicity - fish Not known.

Acute toxicity - aquatic invertebrates Not known.

Acute toxicity - aquatic plants Not known.

12.2. Persistence and degradability

Persistence and degradability The surfactant(s) contained in this product complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request, or at the request of a detergent manufacturer. The product is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient No information available.

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12.4. Mobility in soil

Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces. The product is miscible with water and may spread in water systems.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects Not known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Materials such as cleaning rags and paper wipes that are contaminated with flammable liquids may self-ignite after use and should be stored in designated fireproof containers with tight-fitting, self-closing lids. When handling waste, the safety precautions applying to handling of the product should be considered.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	1210
UN No. (IMDG)	1210
UN No. (ICAO)	1210
UN No. (ADN)	1210

14.2. UN proper shipping name

Proper shipping name (ADR/RID) PRINTING INK RELATED MATERIAL

Proper shipping name (IMDG) PRINTING INK RELATED MATERIAL

Proper shipping name (ICAO) PRINTING INK RELATED MATERIAL

Proper shipping name (ADN) PRINTING INK RELATED MATERIAL

14.3. Transport hazard class(es)

ADR/RID class	3
ADR/RID classification code	F1
ADR/RID label	3
IMDG class	3
ICAO class/division	3
ADN class	3

Transport labels



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14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ADN packing group	III
ICAO packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS	F-E, S-D
ADR transport category	3
Emergency Action Code	•3Y
Hazard Identification Number (ADR/RID)	30
Tunnel restriction code	(D/E)
Limited Quantity Value (Road):	5 Litres
Limited Quantity Value (Sea):	5 Litres

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not Known

SECTION 15: Regulatory information

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

EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
Guidance	Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Key literature references and sources for data Material Safety Data Sheet, Misc. manufacturers.

Classification procedures according to Regulation (EC) 1272/2008 : Calculation method., On basis of test data.

Revision comments NOTE: Lines within the margin indicate significant changes from the previous revision.

BI-SOLVE Screenwash

Issued by	J Waterfield
Revision date	21/09/2015
Revision	5.0
Supersedes date	04/02/2009
SDS number	21650
Risk phrases in full	R10 Flammable. R20 Harmful by inhalation. R20/21/22 Harmful by inhalation, in contact with skin and if swallowed. R22 Harmful if swallowed. R36/37 Irritating to eyes and respiratory system. R36/38 Irritating to eyes and skin. R38 Irritating to skin. R41 Risk of serious damage to eyes.
Hazard statements in full	H226 Flammable liquid and vapour. H302 Harmful if swallowed. H312 Harmful in contact with skin. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.