

Buckleberry Limited

screen print supply company

... the complete solution for screen printers

SAFETY DATA SHEET

B – Solve LO

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

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

1.1. Product identifier

Product name B-Solve Lo

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
LS12 4PL
0113 2797779
sales@buckleberry.co.uk

1.4. Emergency telephone number

Emergency telephone Buckleberry Ltd 0113 2797779 (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

Skin Irrit. 2 - H315 Eye Dam. 1 - H318 STOT SE 3 - H335, H336 Asp. Tox. 1 - H304

Environmental hazards

Aquatic Chronic 2 - H411

Classification (67/548/EEC or 1999/45/EC)

Xn; R65. Xi; R41, R37/38. N; R51/53. R10, R67, R66

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. Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis. May cause serious eye damage. Irritating to skin. Organic solvents may be absorbed into the body by inhalation and ingestion. Product has a defatting effect on skin. Vapours/aerosol spray may irritate the respiratory system.

Environmental

The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

Physicochemical

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

2.2. Label elements**Pictogram****Signal word**

Danger

Hazard statements

H226 Flammable liquid and vapour.
 H304 May be fatal if swallowed and enters airways.
 H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H335 May cause respiratory 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.
 P261 Avoid breathing vapour/spray.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P331 Do NOT induce vomiting.

Supplemental label information

EUH066 Repeated exposure may cause skin dryness or cracking.

Contains

Hydrocarbons, C9, aromatics, 4-hydroxy-4-methylpentan-2-one, Alcohol Ethoxylate with 6.5 MEO

Detergent labelling

≥ 30% aromatic hydrocarbons, 5 - < 15% non-ionic surfactants

Supplementary precautionary statements

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- 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.
 P273 Avoid release to the environment.
 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.
 P391 Collect spillage.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with national regulations.

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**

Hydrocarbons, C9, aromatics	30-60%
CAS number: — EC number: 918-668-5 REACH registration number: 01-2119455851-35-XXXX	
Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 3 - H226	Xn; R65. Xi; R37. N; R51/53. R10, R67, R66
STOT SE 3 - H335, H336	
Asp. Tox. 1 - H304	
Aquatic Chronic 2 - H411	
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	

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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		
Alcohol Ethoxylate with 6.5 MEO		5-10%
CAS number: 68439-46-3 EC number: —		
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.

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**

Overexposure to organic solvents may depress the central nervous system, causing dizziness and intoxication and, at very high concentrations, unconsciousness and death. Upper respiratory irritation.

Ingestion

Diarrhoea. May cause nausea, headache, dizziness and intoxication. Aspiration hazard if swallowed. Pneumonia may be the result if vomited material containing solvents reaches the lungs.

Skin contact

This product is rapidly absorbed through the skin and may cause symptoms similar to those of ingestion. Skin irritation. Repeated exposure may cause skin dryness or cracking.

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.

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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.

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.

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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

Hydrocarbons, C9, aromatics

Long-term exposure limit (8-hour TWA): SUP 19 ppm 100 mg/m3

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

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

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

Hydrocarbons, C9, aromatics

DNEL

Industry - Dermal; Long term systemic effects: 25 mg/kg/day
Industry - Inhalation; Long term systemic effects: 150 mg/m3

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

DNEL

Workers - Inhalation; Short term local effects: 240 mg/m³
Workers - Inhalation; Long term systemic effects: 66.4 mg/m³
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

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

DNEL

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
Industry - Dermal; Long term systemic effects: 75 mg/kg/day
Industry - Inhalation; Long term systemic effects: 20 ppm

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

8.2. Exposure controls

Protective equipment

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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.

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

aromatic hydrocarbons

Odour threshold

No information available.

pH

Not applicable.

Melting point

Not applicable.

Initial boiling point and range

140-200°C @ 760 mm Hg

Flash point

>35°C TCC (Tag 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: 0.7 g/100 g Upper flammable/explosive limit: 10.6 g/100 g

Vapour pressure

>0.01 kPa @ 20°C

Vapour density

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>1

Relative density

~ 0.9 @ 20°C

Bulk density

Not applicable.

Solubility(ies)

Forms an emulsion with water.

Partition coefficient

No information available.

Auto-ignition temperature

>240°C

Decomposition Temperature

No information available.

ViscosityKinematic viscosity \leq 20.5 mm²/s.**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 851 g/litre.

SECTION 10: Stability and reactivity**10.1. 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

Will not polymerise.

10.4. 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

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**

Based on available data the classification criteria are not met.

ATE oral (mg/kg)

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4,063.43014456

Acute toxicity - dermal

Based on available data the classification criteria are not met.

ATE dermal (mg/kg)

6171.91302652

Acute toxicity - inhalation

Based on available data the classification criteria are not met.

ATE inhalation (gases ppm)

25248.73510851

ATE inhalation (vapours mg/l)

61.71913027

ATE inhalation (dusts/mists mg/l)

8.41624504

Skin corrosion/irritation**Animal data**

Irritating.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory sensitisation

Based on available data the classification criteria are not met.

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

Does not contain any substances known to be carcinogenic.

Reproductive toxicity**Reproductive toxicity - fertility**

Does not contain any substances known to be toxic to reproduction.

Specific target organ toxicity - single exposure**STOT - single exposure**

A single exposure may cause the following adverse effects: Gas or vapour may irritate the respiratory system. Drowsiness, dizziness, disorientation, vertigo.

Target organs

Central nervous system Respiratory system, lungs Brain

Specific target organ toxicity - repeated exposure**STOT - repeated exposure**

Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard if swallowed. Pneumonia may be the result if vomited material containing solvents reaches the lungs.

Inhalation

The product contains organic solvents. Overexposure may depress the central nervous system, causing dizziness and intoxication. Irritating to respiratory system.

Ingestion

Harmful: may cause lung damage if swallowed. May cause discomfort if swallowed. May cause nausea, headache, dizziness

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and intoxication.

Skin contact

Irritating to skin. Contains components which may penetrate the skin. Repeated exposure may cause skin dryness or cracking.

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.

SECTION 12: Ecological Information

Ecotoxicity

The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic 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

No data available on bioaccumulation.

Partition coefficient

No information available.

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

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

12.6. 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.

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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



14.4. Packing group

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

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



Yes.

14.6. Special precautions for user

EmS	F-E, S-D
ADR transport category	3
Emergency Action Code	•3Y

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Hazard Identification Number 30
(ADR/RID)

Tunnel restriction code (D/E)

Limited Quantity Value 5 Litres
(Road):

Limited Quantity Value (Sea): 5 Litres

14.7. Transport in bulk according to Annex II of MARPOL73/78 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.

Issued by J Waterfield
Revision date 30/03/2015
Revision 5.0
Supersedes date 20/08/2009
SDS number 21213
Risk phrases in full

R10 Flammable.
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.
R37 Irritating to respiratory system.
R41 Risk of serious damage 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 statements in full

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- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- 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.
- H336 May cause drowsiness or dizziness.
- H411 Toxic to aquatic life with long lasting effects.

Disclaimer

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.