



S322

Version 1.0

MSDS Number: 000000001710

Revision Date: 13.03.2015

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

1.1 Product identifier

Trade name : S322

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

Use of the Sub-
stance/Mixture : Thinner

Recommended restrictions
on use : For use in industrial installations or professional treatment
only.

1.3 Details of the supplier of the safety data sheet

Company : Roberlo s.a.
Ctra. Nacional II, Km. 706,5
17457 Riudellots de la Selva
Spain

Telephone : +34972478060

Telefax : +34972477394

E-mail address of person
responsible for the SDS : msds@roberlo.com

1.4 Emergency telephone number

+34 972 478060 (8:00-12:45 / 14:15-17:30 h) ROBERLO (Spain) (GMT + 1:00)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3 H226: Flammable liquid and vapour.

Skin irritation, Category 2 H315: Causes skin irritation.

Eye irritation, Category 2 H319: Causes serious eye irritation.

Specific target organ toxicity - single ex-
posure, Category 3, Central nervous
system H336: May cause drowsiness or dizziness.

Specific target organ toxicity - single ex-
posure, Category 3, Respiratory system H335: May cause respiratory irritation.

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Specific target organ toxicity - repeated exposure, Category 2

H373: May cause damage to organs through prolonged or repeated exposure if inhaled.

Aspiration hazard, Category 1

H304: May be fatal if swallowed and enters airways.

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

Flammable

R10: Flammable.

Harmful

R20/21: Harmful by inhalation and in contact with skin.

Irritant

R38: Irritating to skin.

R66: Repeated exposure may cause skin dryness or cracking.

R67: Vapours may cause drowsiness and dizziness.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word :

Danger

Hazard statements :

| | |
|------|---|
| H226 | Flammable liquid and vapour. |
| H373 | May cause damage to organs through prolonged or repeated exposure if inhaled. |
| H304 | May be fatal if swallowed and enters airways. |
| H319 | Causes serious eye irritation. |
| H335 | May cause respiratory irritation. |
| H315 | Causes skin irritation. |
| H336 | May cause drowsiness or dizziness. |

Precautionary statements :

Prevention:

| | |
|------|--|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection. |
| P285 | In case of inadequate ventilation wear respiratory protection. |
| P260 | Do not breathe vapours. |
| P261 | Do not breathe spray. |

Response:



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P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
 P331 Do NOT induce vomiting.
 P362 + P364 Take off contaminated clothing and wash it before reuse.
 P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
Disposal:
 P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:
 xylene (mixture of isomers)

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Mixture

Hazardous components

| Chemical Name | CAS-No. EC-No. Registration number | Classification (67/548/EEC) | Classification (REGULATION (EC) No 1272/2008) | Concentration (%) |
|--|--|------------------------------|--|-------------------|
| xylene (mixture of isomers) | 1330-20-7 215-535-7 01- 2119488216-32 | R10 Xn; R20/21 Xi; R38 | Flam. Liq.3; H226 Acute Tox.4; H332 Acute Tox.4; H312 Skin Irrit.2; H315 Eye Irrit.2; H319 STOT SE3; H335 STOT RE2; H373 Asp. Tox.1; H304 | >= 30 - < 50 |
| n-butyl acetate | 123-86-4 204-658-1 01- 2119485493-29 | R10 R66 R67 | Flam. Liq.3; H226 STOT SE3; H336 | >= 20 - < 30 |
| ethylbenzene | 100-41-4 202-849-4 | F; R11 Xn; R20 | Flam. Liq.2; H225 Acute Tox.4; H332 STOT RE2; H373 Asp. Tox.1; H304 | >= 1 - < 10 |
| Substances with a workplace exposure limit : | | | | |
| 2-methoxy-1-methylethyl acetate | 108-65-6 203-603-9 | R10 | Flam. Liq.3; H226 | >= 30 - < 50 |



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| | | | | |
|--|----------------------|--|--|--|
| | 01- 2119475791-29 | | | |
|--|----------------------|--|--|--|

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.

- If inhaled : Move to fresh air.
Consult a physician after significant exposure.

- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.

- In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

- If swallowed : Clean mouth with water and drink afterwards plenty of water.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Inhalation may provoke the following symptoms:
Headache
Dizziness
Fatigue
Weakness
Skin contact may provoke the following symptoms:
Redness
Pain
Ingestion may provoke the following symptoms:
Abdominal pain
Nausea
Vomiting
Diarrhoea

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : No information available.



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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam
Dry chemical

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Do not use a solid water stream as it may scatter and spread fire.

Hazardous combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : For safety reasons in case of fire, cans should be stored separately in closed containments.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Ensure adequate ventilation.

6.2 Environmental precautions

Environmental precautions : Try to prevent the material from entering drains or water courses.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For contact information in case of emergency, see section 1. For information on safe handling, see section 7. For exposure controls and personal protection measures, see section 8. For subsequent waste disposal, follow the recommendations in section 13.



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SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : Avoid exceeding of the given occupational exposure limits (see section 8).
 Avoid contact with skin and eyes.
 For personal protection see section 8.
 Smoking, eating and drinking should be prohibited in the application area.
 Provide sufficient air exchange and/or exhaust in work rooms.

- Advice on protection against fire and explosion : Avoid formation of aerosol. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage : No smoking. Keep container tightly closed in a dry and well-ventilated place.

- Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

- Specific use(s) : For the use of this product do not exist particular recommendations apart from that already indicated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|---------------------------------|---|-------------------------------|----------------------|------------|
| 2-methoxy-1-methylethyl acetate | 108-65-6 | TWA | 50 ppm 275 mg/m3 | 2000/39/EC |
| Further information | Identifies the possibility of significant uptake through the skin, Indicative | | | |
| 2-methoxy-1-methylethyl acetate | 108-65-6 | STEL | 100 ppm 550 mg/m3 | 2000/39/EC |
| Further information | Identifies the possibility of significant uptake through the skin, Indicative | | | |
| 2-methoxy-1-methylethyl acetate | 108-65-6 | TWA | 50 ppm 274 mg/m3 | GB EH40 |

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



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| | | | | |
|---------------------------------|---|------|----------------------|------------|
| Further information | Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity. | | | |
| 2-methoxy-1-methylethyl acetate | 108-65-6 | STEL | 100 ppm 548 mg/m3 | GB EH40 |
| Further information | Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity. | | | |
| xylene (mixture of isomers) | 1330-20-7 | TWA | 50 ppm 220 mg/m3 | GB EH40 |
| Further information | Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity. | | | |
| xylene (mixture of isomers) | 1330-20-7 | STEL | 100 ppm 441 mg/m3 | GB EH40 |
| Further information | Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity. | | | |
| xylene (mixture of isomers) | 1330-20-7 | TWA | 50 ppm 221 mg/m3 | 2000/39/EC |
| Further information | Identifies the possibility of significant uptake through the skin, Indicative | | | |
| xylene (mixture of isomers) | 1330-20-7 | STEL | 100 ppm 442 mg/m3 | 2000/39/EC |
| Further information | Identifies the possibility of significant uptake through the skin, Indicative | | | |
| n-butyl acetate | 123-86-4 | TWA | 150 ppm 724 mg/m3 | GB EH40 |
| n-butyl acetate | 123-86-4 | STEL | 200 ppm 966 mg/m3 | GB EH40 |
| ethylbenzene | 100-41-4 | TWA | 100 ppm 442 mg/m3 | 2000/39/EC |
| Further information | Identifies the possibility of significant uptake through the skin, Indicative | | | |
| ethylbenzene | 100-41-4 | STEL | 200 ppm 884 mg/m3 | 2000/39/EC |
| Further information | Identifies the possibility of significant uptake through the skin, Indicative | | | |
| ethylbenzene | 100-41-4 | TWA | 100 ppm 441 mg/m3 | GB EH40 |
| Further information | Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity. | | | |
| ethylbenzene | 100-41-4 | STEL | 125 ppm 552 mg/m3 | GB EH40 |
| Further information | Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity. | | | |

Biological occupational exposure limits

| Substance name | CAS-No. | Control parameters | Sampling time | Basis |
|----------------|-----------|--|---------------|----------------|
| | 1330-20-7 | methyl hippuric acid: 650mmol/mol creatinine (Urine) | Post shift | GB EH40 BAT |

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

xylene : End Use: Workers
 Exposure routes: Inhalation
 Potential health effects: Long-term systemic effects
 Value: 77 mg/m3



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| | |
|---------------------------------|---|
| n-butyl acetate | : End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 480 mg/m ³ |
| ethylbenzene | : End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 77 mg/m ³ |
| 2-methoxy-1-methylethyl acetate | : End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 275 mg/m ³ |

8.2 Exposure controls

Personal protective equipment

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles

Hand protection

Remarks : Solvent-resistant gloves The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Before removing gloves clean them with soap and water.

Skin and body protection : impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|-----------------------|--|
| Appearance | : liquid |
| Colour | : colourless |
| Odour | : characteristic |
| pH | : not applicable |
| Melting point/range | : not applicable |
| Flash point | : 29 °C Method: ISO 1523, closed cup Setaflash |
| Upper explosion limit | : 8.5 %(V) |



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| | |
|-------------------------------------|--|
| | (25 °C) |
| Lower explosion limit | : 1.3 %(V) (25 °C) |
| Vapour pressure | : 42 hPa (50 °C) |
| | 6.2 hPa (20 °C) |
| Density | : 1.01 g/cm ³ (20 °C) Method: ISO 2811-1 |
| Solubility(ies) Water solubility | : immiscible |
| Viscosity Viscosity, dynamic | : not applicable |

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if used as directed.

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Oxidizing agents
Strong acids and strong bases

10.6 Hazardous decomposition products

Hazardous decomposition products : Carbon monoxide



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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute inhalation toxicity : Acute toxicity estimate : > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 2,000 mg/kg
Method: Calculation method

Components:

xylene (mixture of isomers):

Acute oral toxicity : LD50 Oral (rat): 4,300 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (rat): 22.08 mg/l
Exposure time: 4 h
Method: OECD Test Guideline 403

Acute dermal toxicity : Acute toxicity estimate : 1,100 mg/kg
Method: Converted acute toxicity point estimate

n-butyl acetate:

Acute oral toxicity : LD50 Oral (rat): 10,768 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (rat): 23.4 mg/l
Exposure time: 4 h
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (rabbit): 17,600 mg/kg
Method: OECD Test Guideline 402

ethylbenzene:

Acute oral toxicity : LD50 Oral (rat): 3,500 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (rat): 17.4 mg/l
Exposure time: 4 h
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (rabbit): 15,400 mg/kg
Method: OECD Test Guideline 402

2-methoxy-1-methylethyl acetate:

Acute oral toxicity : LD50 Oral (rat): 8,532 mg/kg



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Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (rat): 35.7 mg/l
Exposure time: 4 h
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (rat): 5,000 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Product:

Result: Skin irritation

Serious eye damage/eye irritation

Product:

Remarks: Severe eye irritation

Respiratory or skin sensitisation

Product:

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

Germ cell mutagenicity

Product:

Germ cell mutagenicity- Assessment : Based on available data, the classification criteria are not met.

Carcinogenicity

Product:

Carcinogenicity - Assessment : Based on available data, the classification criteria are not met.

Reproductive toxicity

Product:

Reproductive toxicity - Assessment : Based on available data, the classification criteria are not met.

STOT - single exposure

Product:

Target Organs: Central nervous system

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.



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STOT - repeated exposure

Product:

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration toxicity

Product:

May be fatal if swallowed and enters airways.

Further information

Product:

Remarks: Solvents may degrease the skin.

SECTION 12: Ecological information

12.1 Toxicity

Components:

xylene (mixture of isomers):

Toxicity to fish : LC50 (Fish): 14 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia): 16 mg/l
aquatic invertebrates Exposure time: 48 h
Method: OECD Test Guideline 202

n-butyl acetate:

Toxicity to fish : LC50 (Fish): 18 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia): 32 mg/l
aquatic invertebrates Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 675 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

ethylbenzene:

Toxicity to fish : LC50 (Fish): 12 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia): 1.8 mg/l



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aquatic invertebrates Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 33 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

2-methoxy-1-methylethyl acetate:

Toxicity to fish : LC50 (Fish): 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia): 408 mg/l
aquatic invertebrates Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 1,000 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Product:

Additional ecological information : There is no data available for this product.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Offer surplus and non-recyclable solutions to a licensed dis-



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posal company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

14.1 UN number

ADR : UN 1263
IMDG : UN 1263
IATA : UN 1263

14.2 UN proper shipping name

ADR : PAINT RELATED MATERIAL
IMDG : PAINT RELATED MATERIAL
IATA : Paint related material

14.3 Transport hazard class(es)

ADR : 3
IMDG : 3
IATA : 3

14.4 Packing group

ADR
Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3

IMDG
Packing group : III
Labels : 3
EmS Code : F-E, S-E

IATA
Packing instruction (cargo aircraft) : 366
Packing instruction (LQ) : Y344
Packing group : III
Labels : Flammable Liquids

14.5 Environmental hazards

ADR
Environmentally hazardous : no



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IMDG

Marine pollutant : no

14.6 Special precautions for user

not applicable

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

| | | Quantity 1 | Quantity 2 |
|-----|-------------------|------------|------------|
| P5c | FLAMMABLE LIQUIDS | 5,000 t | 50,000 t |

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.

15.2 Chemical Safety Assessment

not applicable

SECTION 16: Other information

Full text of R-Phrases

| | |
|--------|---|
| R10 | Flammable. |
| R11 | Highly flammable. |
| R20 | Harmful by inhalation. |
| R20/21 | Harmful by inhalation and in contact with skin. |
| R38 | Irritating to skin. |
| R66 | Repeated exposure may cause skin dryness or cracking. |
| R67 | Vapours may cause drowsiness and dizziness. |

Full text of H-Statements

| | |
|------|---|
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H373 | May cause damage to organs through prolonged or repeated exposure if inhaled. |

Further information



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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.