SAFETY DATA SHEET
S 248

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

1.1. Product identifier

Product name	S 248
Product No.	S 248

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

Identified uses	Adhesive.

1.3. Details of the supplier of the safety data sheet

Supplier	Alpha Adhesives & Sealants Ltd Llewellyn Close,Sandy Lane Ind.Est. Stourport-on-Severn Worcestershire DY13 9RH 01299 828626 01299 828666 sales@alpha-adhesives.co.uk

1.4. Emergency telephone number

44 (0) 1299 828626 (Available 08.30 to 17.00)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (1999/45/EEC) Repr. Cat. 3;R63. Xi;R36/38. F;R11. N;R51/53. R67.

Human health

Contains a substance/a group of substances which may cause harm to the unborn child.

Environment

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

Physical and Chemical Hazards

The product is highly flammable, and explosive vapours/air mixtures may be formed even at normal room temperatures.

2.2. Label elements

Contains TOLUENE

Labelling

Harmful

Highly flammable

Dangerous for the environment

Risk Phrases

R11	Highly flammable
R36/38	Irritating to eyes and skin.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R63	Possible risk of harm to the unborn child.
R67	Vapours may cause drowsiness and dizziness.

Safety Phrases

S9	Keep container in a well-ventilated place.
S16	Keep away from sources of ignition - No smoking.
S23	Do not breathe vapour/spray.
S24/25	Avoid contact with skin and eyes.

S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37	Wear suitable protective clothing and gloves.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.
S57	Use appropriate containment to avoid environmental contamination.

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Hydrocarbons,C6-C7,n-alkanes,isoalkanes,cyclics,<5%n-hexane — 30-60%

CAS-No.: — EC No.: 921-024-6 — Registration Number: 01-2119475514-35

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 2 - H225	Xn;R65.
Skin Irrit. 2 - H315	Xi;R38.
STOT SE 3 - H336	F;R11.
Asp. Tox. 1 - H304	N;R51/53.
Aquatic Chronic 2 - H411	R67.

ACETONE — 30-60%

CAS-No.: 67-64-1 — EC No.: 200-662-2 — Registration Number: 01-2119471330-49

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 2 - H225	F;R11
EUH066	Xi;R36
Eye Irrit. 2 - H319	R66
STOT SE 3 - H336	R67

TOLUENE — 5-10%

CAS-No.: 108-88-3 — EC No.: 203-625-9 — Registration Number: 01-2119471310-51

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 2 - H225	F;R11
Skin Irrit. 2 - H315	Repr. Cat. 3;R63
Repr. 2 - H361d	Xn;R48/20,R65
STOT SE 3 - H336	Xi;R38
STOT RE 2 - H373	R67
Asp. Tox. 1 - H304	

INDUSTRIAL ALCOHOL — 1-5%

CAS-No.: 64-17-5 — EC No.: 200-578-6 — Registration Number: 01-2119457610-43

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 2 - H225	F;R11.

HEXANE-norm		1-5%
CAS-No.: 110-54-3	EC No.: 203-777-6	

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 2 - H225	F;R11
Skin Irrit. 2 - H315	Repr. Cat. 3;R62
Repr. 2 - H361f	Xn;R48/20,R65
STOT SE 3 - H336	Xi;R38
STOT RE 2 - H373	R67
Asp. Tox. 1 - H304	N;R51/53
Aquatic Chronic 2 - H411	

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

Composition Comments

The product contains organic solvents.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information

Move the exposed person to fresh air at once. Provide fresh air, warmth and rest, preferably in comfortable upright sitting position. Keep the affected person warm and at rest. Get prompt medical attention.

Inhalation

Remove victim immediately from source of exposure. Move the exposed person to fresh air at once. In case of inhalation of spray mist: Move person into fresh air and keep at rest. Get medical attention if any discomfort continues.

Ingestion

Immediately rinse mouth and drink plenty of water. If person becomes uncomfortable or if ingested in large amounts (50-100 ml for an adult person): Take to hospital along with these instructions.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water.

Eye contact

No recommendation given, but first aid may still be required in case of accidental exposure of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

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

General information

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

Inhalation.

Vapours may cause headache, fatigue, dizziness and nausea.

Ingestion

May cause stomach pain or vomiting.

Skin contact

Prolonged contact may cause redness, irritation and dry skin.

Eye contact

Irritating and may cause redness and pain.

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

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

Fire creates: Irritating gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO2). Hydrogen chloride (HCl).

Unusual Fire & Explosion Hazards

May form explosive mixture with air at very high concentration. Vapours are heavier than air and may spread near ground to sources of ignition.

Specific hazards

The product is flammable, and heating may generate vapours which may form explosive vapour/air mixtures.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Avoid breathing fire vapours. Ventilate closed spaces before entering them. NOTE! Use air-supplied respirators to protect against gases\fumes. Cool containers exposed to flames with water until well after the fire is out.

Protective equipment for fire-fighters

Wear full protective clothing. Use air-supplied respirator during fire fighting. Face mask, protective gloves and safety helmet.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area. Use protective gloves, goggles and suitable protective clothing.

6.2. Environmental precautions

Do not discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Absorb with sand or other inert absorbent.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Keep away from heat, sparks and open flame. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Avoid inhalation of vapours/spray and contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Flammable/combustible - Keep away from oxidisers, heat and flames. Store in tightly closed original container in a dry, cool and well-ventilated place.

Storage Class

Flammable liquid storage.

7.3. 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

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
ACETONE	WEL	500 ppm	1210 mg/m3	1500 ppm	3620 mg/m3	
FORMALDEHYDE ...%	WEL	2 ppm	2.5 mg/m3	2 ppm	2.5 mg/m3	
HEXANE-norm	WEL	20 ppm	72 mg/m3			
INDUSTRIAL ALCOHOL		1000 ppm	1920 mg/m3			
TOLUENE		50	191	100	384	

WEL = Workplace Exposure Limit.

TOLUENE (CAS: 108-88-3)

DNEL				
Consumer	Oral	Long Term	Systemic Effects	8.13 mg/m3
Industry	Dermal	Long Term	Systemic Effects	384 mg/kg/day
Consumer	Inhalation.	Short Term	Local Effects	226 mg/m3
Consumer	Inhalation.	Short Term	Systemic Effects	226 mg/m3
Industry	Inhalation.	Short Term	Systemic Effects	384 mg/m3
Industry	Inhalation.	Short Term	Local Effects	384 mg/m3
Industry	Inhalation.	Long Term	Local Effects	192 mg/m3
Consumer	Inhalation.	Long Term	Systemic Effects	56.5 mg/m3
Industry	Inhalation.	Long Term	Systemic Effects	192 mg/m3
PNEC				
Industry	Freshwater	0.68	mg/l	
Industry	Sediment (Freshwater)	16.39	mg/kg	
Industry	STP	13.61	mg/l	
Industry	Soil	2.89	mg/kg	

ACETONE (CAS: 67-64-1)

Ingredient Comments

WEL = Workplace Exposure Limits

DNEL				
Industry	Dermal	Short Term	Systemic Effects	186 mg/m3
Industry	Inhalation.	Short Term	Systemic Effects	2420 mg/m3
Industry	Inhalation.	Long Term	Systemic Effects	1210 mg/m3
Consumer	Dermal	Long Term	Systemic Effects	62 mg/m3
Consumer	Inhalation.	Long Term	Systemic Effects	200 mg/m3
Consumer	Oral	Long Term	Systemic Effects	62 mg/m3
Dermal	Long Term	Systemic Effects	186	mg/kg/day
PNEC				
Industry	Freshwater	Long Term	10.6 mg/l	
Industry	Marinewater	Long Term	1.06 mg/l	
Industry	Intermittent release	Intermittent release	21 mg/l	
Industry	Sediment (Freshwater)	Long Term	30.4 mg/l	
Industry	Sediment (Marinewater)	Long Term	3.04 mg/l	
Industry	Soil	Long Term	29.5 mg/kg	
Industry	STP	Long Term	100 mg/l	

8.2. Exposure controls

Protective equipment

Process conditions

Use engineering controls to reduce air contamination to permissible exposure level.

Engineering measures

Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours. Explosion-proof general and local exhaust ventilation.

Respiratory equipment

In case of inadequate ventilation and work of brief duration, use suitable respiratory equipment. In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment with combination filter (type A2/P3).

Hand protection

Use protective gloves made of: Nitrile.

Eye protection

Wear splash-proof eye goggles to prevent any possibility of eye contact.

Other Protection

Wear suitable protective clothing as protection against splashing or contamination.

Hygiene measures

Wash promptly with soap & water if skin becomes contaminated. Wash hands at the end of each work shift and before eating, smoking and using the toilet.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

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Appearance	Liquid
Colour	Red. Straw.
Odour	Hydrocarbon.
Initial boiling point and boiling range	80
Relative density	0.8 20
Viscosity	Less than 100 cps @ *20 °c
Flash point	- 18 CC (Closed cup).
Flammability Limit - Lower(%)	0.9
Flammability Limit - Upper(%)	19

9.2. Other information

Volatile Organic Compound (VOC) 677 g/litre

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Not applicable.
Hazardous Polymerisation
Not relevant

10.4. Conditions to avoid

Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials To Avoid
No incompatible groups noted.

10.6. Hazardous decomposition products

Fire creates: Vapours/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO_2). Hydrogen chloride (HCl).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Inhalation
Vapours may cause drowsiness and dizziness.

Skin contact
Irritating to skin.

Eye contact
Irritating to eyes.

Route of entry
Inhalation. Skin absorption.

Medical Symptoms
High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting.
Specific effects
Contains a substance/a group of substances which may cause harm to the unborn child.

Toxicological information on ingredients.

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TOLUENE (CAS: 108-88-3)

Toxic Dose 1 - LD 50

> 2000 mg/kg (oral rat)

Toxic Dose 2 - LD 50

> 2000 mg/kg (oral-rbt)

Toxic Conc. - LC 50

> 20 ppm/4h (inh-rat)

ACETONE (CAS: 67-64-1)

Toxic Conc. - LC 50

>20 mg/l/4h (inh-rat)

Acute toxicity:

Acute Toxicity (Oral LD50)

5800 mg/kg Rat

Acute Toxicity (Dermal LD50)

2000 mg/kg Rabbit

INDUSTRIAL ALCOHOL (CAS: 64-17-5)

Acute toxicity:

Acute Toxicity (Oral LD50)

7060 mg/kg Rat

Acute Toxicity (Dermal LD50)

> 2000 mg/kg Rabbit

Acute Toxicity (Inhalation LC50)

> 20 mg/l (vapours) Mouse 4 hours

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

The product contains substances which are toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

12.1. Toxicity

Ecological information on ingredients.

TOLUENE (CAS: 108-88-3)

LC 50, 96 Hrs, Fish mg/l

>1<10

Acute Toxicity - Fish

LC50 96 hours 13 mg/l Carassius auratus (Goldfish)

NOEC 192 hours >1-< 10 mg/l Freshwater fish

Acute Toxicity - Aquatic Invertebrates

EC50 48 hours 11.5 mg/l Daphnia magna

IC 50, 72 Hrs, Algae, mg/l

>100

Acute Toxicity - Aquatic Plants

IC50 72 hours 12 mg/l Selenastrum capricornutum

ACETONE (CAS: 67-64-1)

LC 50, 96 Hrs, Fish mg/l

>100

EC 50, 48 Hrs, Daphnia, mg/l

8300

IC 50, 72 Hrs, Algae, mg/l

>100

Chronic Toxicity - Aquatic Invertebrates

NOEC 28 days > 10-<100 mg/l Freshwater invertebrates

INDUSTRIAL ALCOHOL (CAS: 64-17-5)

Acute Toxicity - Fish

LC50 96 hours 1030 mg/l Freshwater fish

LC50 48 hours > 100 mg/l Leuciscus idus (Golden orfe)

Acute Toxicity - Aquatic Invertebrates

EC50 48 hours > 100 Daphnia magna

Acute Toxicity - Aquatic Plants

EC50 48 hours > 100 mg/l Freshwater algae

12.2. Persistence and degradability

Degradability

The product is expected to be slowly biodegradable.

Ecological information on ingredients.

TOLUENE (CAS: 108-88-3)

Degradability

The product is easily biodegradable.

Biological Oxygen Demand

1.23 g O2/g substance

ACETONE (CAS: 67-64-1)

Degradability

The product is easily biodegradable.

INDUSTRIAL ALCOHOL (CAS: 64-17-5)

Degradability

The product is easily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential

The product does not contain any substances expected to be bioaccumulating.

Ecological information on ingredients.

TOLUENE (CAS: 108-88-3)

Bioaccumulative potential

The product is not bioaccumulating.

INDUSTRIAL ALCOHOL (CAS: 64-17-5)

Bioaccumulative potential

Will not bio-accumulate.

12.4. Mobility in soil

Mobility:

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

Ecological information on ingredients.

TOLUENE (CAS: 108-88-3)

Mobility:

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

INDUSTRIAL ALCOHOL (CAS: 64-17-5)

Mobility:

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

12.5. Results of PBT and vPvB assessment

Ecological information on ingredients.

TOLUENE (CAS: 108-88-3)

This product does not contain any PBT or vPvB substances.

ACETONE (CAS: 67-64-1)

This product does not contain any PBT or vPvB substances.

INDUSTRIAL ALCOHOL (CAS: 64-17-5)

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

UN No. (ADR/RID/ADN)	1133
UN No. (IMDG)	1133
UN No. (ICAO)	1133

14.2. UN proper shipping name

Proper Shipping Name	ADHESIVES (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5%n-hexane)

14.3. Transport hazard class(es)

ADR/RID/ADN Class	3
ADR/RID/ADN Class	Class 3: Flammable liquids.
ADR Label No.	3
IMDG Class	3
ICAO Class/Division	3

Transport Labels

14.4. Packing group

ADR/RID/ADN Packing group	II
IMDG Packing group	II
ICAO Packing group	II

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

14.6. Special precautions for user

EMS	F-E, S-D
Emergency Action Code	•3YE
Hazard No. (ADR)	33
Tunnel Restriction Code	(D/E)

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

SECTION 15: REGULATORY INFORMATION

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

Uk Regulatory References
The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.
Environmental Listing
Control of Pollution Act 1974.
Statutory Instruments
The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).
Approved Code Of Practice
Safety Data Sheets for Substances and Preparations.
Guidance Notes
Workplace Exposure Limits EH40.
EU Legislation
Dangerous Substance Directive 67/548/EEC.
National Regulations
Control of Substances Hazardous to Health Regulations 2002 (as amended)

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

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Abbreviations and acronyms used in the safety data sheet

ADR : European Agreement concerning the International Transport of Dangerous Goods by Road RID : Regulations Concerning the International Transport of Dangerous Goods by Rail IMDG : International Maritime Code for Dangerous Goods IATA : International Air Transport Association ICAO : International Civil Aviation Organization GHS : Globally Harmonized System of Classification and Labelling of Chemicals EINECS : European Inventory of Existing Commercial Chemical Substances CAS : Chemical Abstracts Service DNEL ; Derived No Effect Level (REACH) PNEC : Predicted No Effect Concentration (REACH) LC50 : Lethal Concentration 50 percent LD50 : Lethal Dose 50 percent

Information Sources

Dangerous Properties of Industrial Materials Report, N.Sax et.al.

Revision Comments

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

Revision Date	DECEMBER 2012
Revision	5

Risk Phrases In Full

R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R65	Harmful: may cause lung damage if swallowed.
R11	Highly flammable
R36/38	Irritating to eyes and skin.
R36	Irritating to eyes.
R38	Irritating to skin.
R63	Possible risk of harm to the unborn child.
R62	Possible risk of impaired fertility.
R66	Repeated exposure may cause skin dryness or cracking.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67	Vapours may cause drowsiness and dizziness.

Hazard Statements In Full

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs <<Organs>> through prolonged or repeated exposure.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.
H361f	Suspected of damaging fertility.
H361d	Suspected of damaging the unborn child.
H411	Toxic to aquatic life with long lasting effects.