

SAFETY DATA SHEET HIGH PERFORMANCE ACRYLIC CONFORMAL COATING

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

1.1. Product identifier	
Product name	HIGH PERFORMANCE ACRYLIC CONFORMAL COATING
Product No.	HPA-b, EHPA01L, EHPA05L, ZE
1.2. Relevant identified uses	of the substance or mixture and uses advised against
Identified uses	Conformal coating for appliance protection
Uses advised against	At this moment in time we do not have information on use restrictions. They will be included in this safety data sheet when available
1.3. Details of the supplier o	f the safety data sheet
Supplier	ELECTROLUBE. A division of HK WENTWORTH LTD ASHBY PARK, COALFIELD WAY, ASHBY DE LA ZOUCH, LEICESTERSHIRE LE65 1JR UNITED KINGDOM +44 (0)1530 419600 +44 (0)1530 416640 info@hkw.co.uk
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<u>1.4. Emergency telephone number</u>

+44 (0)1530 419600 between 8.30am - 5.00pm GMT Mon - Fri

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Physical and Chemical Hazards	Flam. Liq. 2 - H225
Human health	Skin Irrit. 2 - H315;Eye Irrit. 2 - H319;Skin Sens. 1 - H317;Repr. 2 - H361d;STOT SE 3 - H336;STOT RE 2 - H373
Environment	Not classified.
Xn;R48/20. Repr. Cat. 3;R63	. Xi;R36/38. R43. F;R11. R67.

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

Physical and Chemical Hazards

Classification (1999/45/EEC)

Classification (EC 1272/2008)

The product is highly flammable, and explosive vapours/air mixtures may be formed even at normal room temperatures. Vapours are heavier than air and may travel along the floor and in the bottom of containers.

2.2. Label elements

Contains

TOLUENE

2-OCTYL-2H-ISOTHIAZOL-3-ONE

Label In Accordance With (EC) No. 1272/2008



Hazard Statements		
	H225	Highly flammable liquid and vapour.
	H315	Causes skin irritation.
	H317	May cause an allergic skin reaction.
	H319	Causes serious eye irritation.
	H336	May cause drowsiness or dizziness.
	H361d	Suspected of damaging the unborn child.
	H373	May cause damage to organs through prolonged or repeated exposure.
Precautionary Statements		
	P210	Keep away from heat/sparks/open flames/hot surfaces No smoking.
	P271	Use only outdoors or in a well-ventilated area.
	P280	Wear protective gloves, eye and face protection.
	P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes.
		Remove contact lenses, if present and easy to do. Continue rinsing.
	P313	Get medical advice/attention.
Supplementary Precautionary	/ Statements	
	P260	Do not breathe vapour/spray.
	P333+313	If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other hazards

Not Classified as PBT/vPvB by current EU criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

TOLUENE		30-60
CAS-No.: 108-88-3	EC No.: 203-625-9	
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 Asp. Tox. 1 - H304		R67
BUTANONE		10-30
CAS-No.: 78-93-3	EC No.: 201-159-0	Registration Number: 01-2119457290-
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
		<0.1
2-OCTYL-2H-ISOTHIAZOL-3-ONE		
2-0CTTL-2H-ISOTHIAZOL-3-ONE	EC No.: 247-761-7	

Classification (EC 1272/2008)	Classification (67/548/EEC)
Acute Tox. 3 - H311	T;R23/24
Acute Tox. 3 - H331	C;R34
Skin Corr. 1B - H314	Xn;R22
Skin Sens. 1 - H317	R43
Aquatic Acute 1 - H400	N;R50/53
Aquatic Chronic 1 - H410	

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

Composition Comments

Ingredients not listed are classified as non-hazardous or at a concentration below reportable levels.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

Move the exposed person to fresh air at once. Keep the affected person warm and at rest. Get prompt medical attention. **Ingestion**

DO NOT INDUCE VOMITING! Rinse mouth thoroughly. Get medical attention immediately!

Skin contact

Wash the skin immediately with soap and water. Get medical attention if irritation persists after washing. **Eye contact**

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Contact physician if irritation persists. Use tepid water for rinsing

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

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

Treat Symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Fire can be extinguished using: Foam. Dry chemicals, sand, dolomite etc.

5.2. Special hazards arising from the substance or mixture

5.3. Advice for firefighters

Special Fire Fighting Procedures

Avoid breathing fire vapours. Cool containers exposed to flames with water until well after the fire is out.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

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

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. Clean-up personnel should use respiratory and/or liquid contact protection. Absorb in vermiculite, dry sand or earth and place into containers.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards. Collect and dispose of spillage as indicated in section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid spilling, skin and eye contact. Keep away from heat, sparks and open flame. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Use explosion proof electric equipment.

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. Keep in original container.

7.3. Specific end use(s)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA	- 8 Hrs	STEL	- 15 Min	Notes
BUTANONE	WEL	200 ppm	600 mg/m3	300 ppm	899 mg/m3	Sk
TOLUENE	WEL	50 ppm	191 mg/m3	100 ppm	384 mg/m3	Sk

WEL = Workplace Exposure Limit.

Sk = Can be absorbed through skin.

Ingredient Comments

DNE

WEL = Workplace Exposure Limits

BUTANONE (CAS: 78-93-3)

DINEL				
Industry	Dermal	Long Term	1161	mg/kg/day
Industry	Inhalation.	Long Term	600	mg/m3
Consumer	Dermal	412	mg/kg/day	
Inhalation.	106	mg/m3		
Oral	31	mg/kg/day		
PNEC				
Freshwater	55.8	mg/l		
Marinewater	55.8	mg/l		
STP	709	mg/l		
Sediment	284.7	mg/kg		
Soil	22.5	mg/kg		

8.2. Exposure controls

Protective equipment



Process conditions

Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station. **Engineering measures**

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Respiratory equipment

In case of inadequate ventilation and work of brief duration, use suitable respiratory equipment. It is recommended to use respiratory equipment with combination filter, type A2/P2. EN14387

Hand protection

Use suitable protective gloves if risk of skin contact. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Nitrile gloves are recommended. Gloves should conform to EN374

Eye protection

Wear approved, tight fitting safety glasses where splashing is probable. EN166 **Other Protection**

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact. **Hygiene measures**

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap & water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Liquid Clear
Colour	Colourless.
Odour	Organic solvents.
Solubility	Insoluble in water Soluble in: Acetone Miscible with: Alcohol Chloroform Ether.
Melting point (°C)	<-89 (128.2 F)
Relative density	0.910 @ 20 °c
Vapour pressure	2.9 kPa
Viscosity	2.0 mPas @ 25 °c (77 F)
Flash point (°C)	-7 (19.4 F) CC (Closed cup).
Auto Ignition Temperature (°C)	>404
Flammability Limit - Lower(%)	1.9
Flammability Limit - Upper(%)	10

9.2. Other information

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.

10.3. Possibility of hazardous reactions

Not determined. Hazardous Polymerisation Will not polymerise.

10.4. Conditions to avoid

Avoid heat. Avoid contact with oxidisers or reducing agents.

10.5. Incompatible materials

Materials To Avoid

Strong oxidising substances.

10.6. Hazardous decomposition products

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

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Inhalation

Harmful by inhalation. May cause irritation to the respiratory system. Vapours may cause headache, fatigue, dizziness and nausea.

Ingestion

May cause discomfort if swallowed.

Skin contact

May cause sensitisation by skin contact. Product has a defatting effect on skin. Prolonged contact may cause dryness of the skin.

Eye contact

Irritating to eyes. Route of entry Inhalation. Skin absorption.

Toxicological information on ingredients.

TOLUENE (CAS: 108-88-3)

Toxic Dose 1 - LD 50 5000 mg/kg (oral rat)

BUTANONE (CAS: 78-93-3)

Toxic Dose 1 - LD 50 >2193 mg/kg (oral rat)

Acute toxicity:

Acute Toxicity (Oral LD50) > 2193 mg/kg Rat

Acute Toxicity (Dermal LD50)

> 5000 mg/kg Rabbit

Aspiration hazard:

Inhalation

Vapour may irritate respiratory system or lungs. Vapours may cause drowsiness and dizziness. **Ingestion**

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May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication. **Skin contact**

Irritating to skin. Repeated exposure may cause skin dryness or cracking. Irritating to eyes.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Not regarded as dangerous for the environment.

12.1. Toxicity

Ecological information on ingredients.

TOLUENE (CAS: 108-88-3)

LC 50, 96 Hrs, Fish mg/l 24 EC 50, 48 Hrs, Daphnia, mg/l 19.6

BUTANONE (CAS: 78-93-3)

Acute Fish Toxicity Not considered toxic to fish. LC 50, 96 Hrs, Fish mg/l 3200 - 5600 EC 50, 48 Hrs, Daphnia, mg/l 7060

12.2. Persistence and degradability

Degradability

There are no data on the degradability of this product.

Ecological information on ingredients.

BUTANONE (CAS: 78-93-3)

Degradability

The product is easily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential

No data available on bioaccumulation.

Ecological information on ingredients.

BUTANONE (CAS: 78-93-3)

Bioaccumulative potential

No data available on bioaccumulation.

12.4. Mobility in soil

Mobility:

Not considered mobile.

Ecological information on ingredients.

BUTANONE (CAS: 78-93-3)

Mobility:

The product is soluble in water.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

Ecological information on ingredients.

BUTANONE (CAS: 78-93-3)

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

Ecological information on ingredients.

BUTANONE (CAS: 78-93-3)

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

13.1. Waste treatment methods

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

SECTION 14: TRANSPORT INFORMATION			
General	For US Domestic transportation this product is classified as a Consumer Commodity. For International transportation this product is classified as UN1263 PAINT		
<u>14.1. UN number</u>			
UN No. (IMDG)	1263		
UN No. (ICAO)	1263		
14.2. UN proper shipping name			
Proper Shipping Name	PAINT		
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 No.

14.6. Special precautions for user

EMS	F-E, S-E
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

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716). Control of Substances Hazardous to Health.

Guidance Notes

Workplace Exposure Limits EH40.

EU Legislation

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

Authorisations (Title VII Regulation 1907/2006)

No specific authorisations are noted for this product.

Restrictions (Title VIII Regulation 1907/2006)

No specific restrictions of use are noted for this product.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Issued By	
Revision Date	
Revision	

	HIGH PERFORMANCE ACRILIC CONFORMAL COATING
SDS No.	10486
Risk Phrases In Full	
R34	Causes burns.
R22	Harmful if swallowed.
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.
R43	May cause sensitisation by skin contact.
R63	Possible risk of harm to the unborn child.
R66	Repeated exposure may cause skin dryness or cracking.
R23/24	Toxic by inhalation and in contact with skin.
R67	Vapours may cause drowsiness and dizziness.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Hazard Statements In Full	
EUH066	Repeated exposure may cause skin dryness or cracking.
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs << Organs >> through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very 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.



SAFETY DATA SHEET HIGH PERFORMANCE ACRYLIC CONFORMAL COATING

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

1.1. Product identifier	
Product name	HIGH PERFORMANCE ACRYLIC CONFORMAL COATING
Product No.	HPA-a, EHPA200, ZE
1.2. Relevant identified uses	s of the substance or mixture and uses advised against
Identified uses	Conformal coating for appliance protection
Uses advised against	At this moment in time we do not have information on use restrictions. They will be included in this safety data sheet when available
1.3. Details of the supplier o	of the safety data sheet
Supplier	ELECTROLUBE. A division of HK
	WENTWORTH LTD
	ASHBY PARK, COALFIELD WAY,
	ASHBY DE LA ZOUCH, LEICESTERSHIRE
	LE65 1JR
	UNITED KINGDOM
	+44 (0)1530 419600
	+44 (0)1530 416640

1.4. Emergency telephone number

+44 (0)1530 419600 between 8.30am - 5.00pm GMT Mon - Fri

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Physical and Chemical
HazardsFlam. Aerosol 1 - H222HazardsSkin Irrit. 2 - H315;Eye Irrit. 2 - H319;Repr. 2 - H361d;STOT SE 3 -
H336;STOT RE 2 - H373EnvironmentNot classified.Xn;R48/20. Repr. Cat. 3;R63. Xi;R36/38. F+;R12. R67.

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

info@hkw.co.uk

Physical and Chemical Hazards

Classification (1999/45/EEC)

Classification (EC 1272/2008)

When sprayed on a naked flame or any incandescent material the aerosol vapours can be ignited. Aerosol containers can explode when heated, due to excessive pressure build-up.

2.2. Label elements

Contains TOLUENE Label In Accordance With (EC) No. 1272/2008



Signal Word

Danger

Hazard Statements		
	H222	Extremely flammable aerosol.
	H315	Causes skin irritation.
	H319	Causes serious eye irritation.
	H336	May cause drowsiness or dizziness.
	H361d	Suspected of damaging the unborn child.
	H373	May cause damage to organs through prolonged or repeated
		exposure.
Precautionary Statements		
	P210	Keep away from heat/sparks/open flames/hot surfaces No smoking.
	P211	Do not spray on an open flame or other ignition source.
	P251	Pressurized container: Do not pierce or burn, even after use.
	P280	Wear protective gloves, eye and face protection.
Supplementary Precautionary	/ Statements	
	P271	Use only outdoors or in a well-ventilated area.
	P260	Do not breathe vapour/spray.
	P302+352	IF ON SKIN: Wash with plenty of soap and water.
	P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes.
		Remove contact lenses, if present and easy to do. Continue rinsing.
	P313	Get medical advice/attention.
	P332+313	If skin irritation occurs: Get medical advice/attention.
	P410+412	Protect from sunlight. Do not expose to temperatures exceeding 50 $^\circ$ C/122 $^\circ\text{F}.$

2.3. Other hazards

Not Classified as PBT/vPvB by current EU criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

TOLUENE		30-60%
CAS-No.: 108-88-3	EC No.: 203-625-9	
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		
BUTANONE		10-30%
CAS-No.: 78-93-3	EC No.: 201-159-0	Registration Number: 01-2119457290-43
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
BUTANE		10-30%
CAS-No.: 106-97-8	EC No.: 203-448-7	
Classification (EC 1272/2008)		Classification (67/548/EEC)
Flam. Gas 1 - H220		

SOLVENT NAPHTHA (petroleum, light)			<0.5%
CAS-No.: 64742-95-6	EC No.: 265-199-0		
Classification (EC 1272/2008) Not classified.		Classification (67/548/EEC) Xn;R65. Xi;R37. N;R51/53. R10.	

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

Composition Comments

Ingredients not listed are classified as non-hazardous or at a concentration below reportable levels.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

Move the exposed person to fresh air at once. Keep the affected person warm and at rest. Get prompt medical attention. Get medical attention.

Ingestion

Not relevant

Skin contact

Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.

Eye contact

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues. Use tepid water for rinsing

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

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

Treat Symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Use: Powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

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

Unusual Fire & Explosion Hazards

Aerosol cans may explode in a fire.

Specific hazards

Due to the small packaging, the risk of inhaling gases formed in a fire is minimal.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Move container from fire area if it can be done without risk.

Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

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

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

Absorb in vermiculite, dry sand or earth and place into containers. Ventilate well.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards. Collect and dispose of spillage as indicated in section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid spilling, skin and eye contact. Provide good ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Store at moderate temperatures in dry, well ventilated area.

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
BUTANE	WEL	600 ppm	1450 mg/m3	750 ppm	1810 mg/m3	
BUTANONE	WEL	200 ppm	600 mg/m3	300 ppm	899 mg/m3	Sk
TOLUENE	WEL	50 ppm	191 mg/m3	100 ppm	384 mg/m3	Sk

WEL = Workplace Exposure Limit.

Sk = Can be absorbed through skin.

BUTANONE (CAS: 78-93-3)

DNEL				
Industry	Dermal	Long Term	1161	mg/kg/day
Industry	Inhalation.	Long Term	600	mg/m3
Consumer	Dermal	412	mg/kg/day	
Inhalation.	106	mg/m3		
Oral	31	mg/kg/day		
PNEC				
Freshwater	55.8	mg/l		
Marinewater	55.8	mg/l		
STP	709	mg/l		
Sediment	284.7	mg/kg		
Soil	22.5	mg/kg		

8.2. Exposure controls

Protective equipment





Process conditions

Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station.

Engineering measures

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Respiratory equipment

In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment with combination filter (type A2/P3). EN14387

Hand protection

Protective gloves should be used if there is a risk of direct contact or splash. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Gloves of nitrile rubber, PVA or Viton are recommended. Gloves should conform to EN374

Eye protection

Wear approved, tight fitting safety glasses where splashing is probable. EN166 **Other Protection**

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact. **Hygiene measures**

Wash hands at the end of each work shift and before eating, smoking and using the toilet. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke. DO NOT SMOKE IN WORK AREA!

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Aerosol. Liquid
Colour	White.
Odour	Characteristic.
Solubility	Insoluble in water
Relative density	@ 20 °c (68 F)
Vapour pressure	0.87 kPa @ 25 °c (77 F)
Flash point (°C)	<0 (32 F) CC (Closed cup).
Auto Ignition Temperature (°C)	410/550
Flammability Limit - Lower(%)	1.8
Flammability Limit - Upper(%)	10

9.2. Other information

Volatility Description

Volatile

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.

10.3. Possibility of hazardous reactions

No information required. Hazardous Polymerisation

Will not polymerise.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid contact with acids and alkalis.

10.5. Incompatible materials

Materials To Avoid Powdered metal. Alkali metals. Alkali earth metals.

10.6. Hazardous decomposition products

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

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxicological information

No information available.

Inhalation

Harmful by inhalation. May cause irritation to the respiratory system. Vapours may cause headache, fatigue, dizziness and nausea. High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting.

Skin contact

Product has a defatting effect on skin. Prolonged contact may cause dryness of the skin.

Eye contact

Irritating to eyes.

Health Warnings

Intentional misuse by concentrating / inhalating contents may be lethal **Route of entry** Inhalation.

Toxicological information on ingredients.

BUTANE (CAS: 106-97-8)

Acute toxicity:

Acute Toxicity (Inhalation LC50) 658 mg/l (vapours) Rat 4 hours

TOLUENE (CAS: 108-88-3)

BUTANONE (CAS: 78-93-3)

Toxic Dose 1 - LD 50 5000 mg/kg (oral rat)

Toxic Dose 1 - LD 50 >2193 mg/kg (oral rat)

Acute toxicity:

Acute Toxicity (Oral LD50)

> 2193 mg/kg Rat

Acute Toxicity (Dermal LD50)

> 5000 mg/kg Rabbit

Aspiration hazard:

Inhalation

Vapour may irritate respiratory system or lungs. Vapours may cause drowsiness and dizziness. Ingestion

May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication. **Skin contact**

Irritating to skin. Repeated exposure may cause skin dryness or cracking. Irritating to eyes.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

No data on possible environmental effects have been found. Not regarded as dangerous for the environment.

12.1. Toxicity

Ecological information on ingredients.

TOLUENE (CAS: 108-88-3)

LC 50, 96 Hrs, Fish mg/l

24 EC 50, 48 Hrs, Daphnia, mg/l 19.6

BUTANONE (CAS: 78-93-3)

Acute Fish Toxicity

Not considered toxic to fish. LC 50, 96 Hrs, Fish mg/l 3200 - 5600 EC 50, 48 Hrs, Daphnia, mg/l 7060

12.2. Persistence and degradability

Degradability

There are no data on the degradability of this product.

Ecological information on ingredients.

BUTANONE (CAS: 78-93-3)

Degradability

The product is easily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential

No data available on bioaccumulation.

Ecological information on ingredients.

BUTANONE (CAS: 78-93-3)

Bioaccumulative potential

No data available on bioaccumulation.

12.4. Mobility in soil

Mobility:

The product is insoluble in water.

Ecological information on ingredients.

BUTANONE (CAS: 78-93-3)

Mobility:

The product is soluble in water.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

Ecological information on ingredients.

BUTANONE (CAS: 78-93-3)

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

Ecological information on ingredients.

BUTANONE (CAS: 78-93-3)

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Empty containers must not be burned because of explosion hazard. Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPOR	
General	This product is packed in accordance with the Limited Quantity Provisions of CDGCPL2, ADR and IMDG. These provisions allow transport of aerosols of less than 1litre packed in cartons of less than 30kg gross to be exempt from control providing that they are labelled in accordance with the requirements of these regulations to show that they are being transported as Limited Quantities. Aerosols not so packed must show the following
<u>14.1. UN number</u>	
UN No. (ADR/RID/ADN)	1950
UN No. (IMDG)	1950
UN No. (ICAO)	1950
14.2. UN proper shipping nam	<u>e</u>
Proper Shipping Name	AEROSOLS
14.3. Transport hazard class(e	<u>es)</u>
ADR/RID/ADN Class	2.1
ADR/RID/ADN Class	Class 2: Gases
ADR Label No.	2.1
IMDG Class	2.1
ICAO Class/Division	2.1
Transport Labels	
	FLAMMABLE GAS 2

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant No.

14.6. Special precautions for user

EMS	F-D, S-U
Tunnel Restriction Code	(D)

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

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716). Control of Substances Hazardous to Health.

Guidance Notes

Workplace Exposure Limits EH40.

EU Legislation

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

Authorisations (Title VII Regulation 1907/2006)

No specific authorisations are noted for this product.

Restrictions (Title VIII Regulation 1907/2006)

No specific restrictions of use are noted for this product.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

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Revision Date	APRIL 2013
Revision	7
SDS No.	10487
Risk Phrases In Full	
R12	Extremely flammable.
R10	Flammable.
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.
R37	Irritating to respiratory system.
R38	Irritating to skin.
R63	Possible risk of harm to the unborn child.
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 Ful	1
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H222	Extremely flammable aerosol.
H220	Extremely flammable gas.
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.
H361d	Suspected of damaging the unborn child.

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.