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

1.1. Product identifier

Urethane

UFI: DDA0-E0AM-R00A-V2VJ

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

Use of the substance/mixture

Isolierlack, Isolation lacquer

Uses advised against

Reserved for industrial and professional use.

.

1.3. Details of the supplier of the safety data sheet

Company name:	ITW LLC & Co. KG
Street:	Am Eichenbach 14
Place:	D-73054 Eislingen/Fils
Telephone:	+49 800 6273002
E-mail:	skrautmann@itwindustrialsolutions.com
Contact person:	Produktsicherheit Mo. - Do. 8.00 - 16.30 Fr. 8.00 - 14.00 Telephone: ++49 800 6273002
E-mail:	info@itwindustrialsolutions.com
Internet:	www.itwindustrialsolutions.com
Responsible Department:	Produktsicherheit Mo. - Do. 8.00 - 16.30 Fr. 8.00 - 14.00 Deutschland: Vergiftungs-Informations-Zentrale Freiburg 0761 19240 Swiss Toxicological Information Centre - Téléphone : +41 44 251 51 51 (in Switzerland dial 145) United Kingdom : National Poisons Information Service - Phone number : 8448920111 Österreich : Vergiftungsinformationszentrale Vienna - Telefon-Nummer : +43 1 406 43 43 Schweiz : Tox Info Suisse - Telefon-Nummer : +41 44 251 51 51 España : Instituto Nacional de Toxicología - Teléfono : +34 91 562 04 20 România (Romania): Spitalul de Urgenta Floreasca 021 230 8000 România (Romania): Spitalul de Urgenta Floreasca 021 230 8000 CAV “Ospedale Pediatrico Bambino Gesù” – Roma Tel. (+39) 06.6859.3726 CAV “Azienda Ospedaliera Università di Foggia” – Foggia Tel. 800.183.459 CAV “Azienda Ospedaliera A. Cardarelli” – Napoli Tel. (+39) 081.545.3333 CAV Policlinico “Umberto I” – Roma Tel. (+39) 06.4997.8000 CAV Policlinico “A. Gemelli” – Roma Tel. (+39) 06.305.4343 CAV Azienda Ospedaliera “Careggi” U.O. Tossicologia Medica – Firenze Tel. (+39) 055.794.7819 CAV Centro Nazionale di Informazione Tossicologica – Pavia Tel. (+39) 0382.24.444 CAV Ospedale Niguarda – Milano Tel. (+39) 02.66.1010.29 CAV Azienda Ospedaliera Papa Giovanni XXIII – Bergamo Tel. 800.88.33.00 CAV Centro antiveleni Veneto – Verona Tel. 800.011.858 Slovakia: National Toxicological Information Centre Bratislava +421 2 5465 2307 Czech Republic: Ministry of Health of the Czech Republic Chemical Substances and Biocidal Products Unit +420 267 082 236 Slovakia: National Toxicological Information Centre Bratislava +421 2 5465 2307

1.4. Emergency telephone number:

Deutschland: ++49 800 6273002
Slovakia: National Toxicological Information Centre Bratislava +421

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Aerosol 1; H222-H229
Skin Irrit. 2; H315
STOT SE 3; H336
STOT RE 2; H373
Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

2.2. Label elements

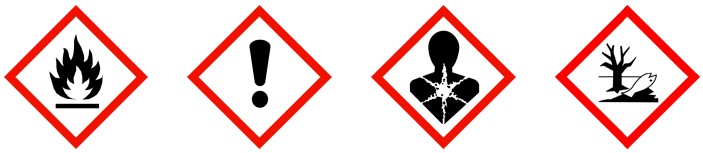
GB CLP Regulation

Hazard components for labelling

Kohlenwasserstoffe C6, C9-C12, n-Alkane,Isoalkane,Cyclene, Aromaten, Hydrocarbons C6, C9-C12, n-alkanes, isoalkanes, cyclics,aromatic

Signal word: Danger

Pictograms:



Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P312	Call a doctor if you feel unwell.
P271	Use only outdoors or in a well-ventilated area.
P251	Do not pierce or burn, even after use.
P211	Do not spray on an open flame or other ignition source.
P210	Keep away from heat. No Smoking.

Special labelling of certain mixtures

EUH208	Contains Enthält 2-ethylhexanoate of cobalt. Contains ethylhexanoate of cobalt. May produce a allergic reaction.. May produce an allergic reaction.

2.3. Other hazards

Ergebnisse der PBT- und vPvB-Beurteilung
PBT: Nicht anwendbar.
PvB: Nicht anwendbar.
Results of PBT and vPvB assessment
PBT
Not applicable.
PvB
Not applicable.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
106-97-8	butane			20-40%
	203-448-7	601-004-00-0		
	Flam. Gas 1; H220			
	Hydrocarbons, C6, isoalkanes, <5% n-hexane			10-40%
	931-254-9		01-2119484651-34	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411			
	Hydrocarbons, C9, aromatics			10-30%
	918-668-5		01-2119455851-35	
	Flam. Liq. 3, STOT SE 3, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H226 H335 H336 H304 H411			
74-98-6	propane			10-30%
	200-827-9	601-003-00-5		
	Flam. Gas 1; H220			
	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics,aromatic			5-10 %
	919-446-0		01-2119458049-33	
	Flam. Liq. 3, STOT SE 3, STOT RE 1, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 2; H226 H336 H372 H304 H400 H411			
136-52-7	2-ethylhexanoate of cobalt			< 0.1 %
	205-250-6		01-2119524678-29	
	Repr. 1B, Eye Irrit. 2, Skin Sens. 1A, Aquatic Acute 1, Aquatic Chronic 3; H360 H319 H317 H400 H412			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
	931-254-9	Hydrocarbons, C6, isoalkanes, <5% n-hexane	10-40%
	inhalation: LC50 = 259354 mg/l (vapours); dermal: LD50 = 3350 mg/kg; oral: LD50 = >36750 mg/kg		
	918-668-5	Hydrocarbons, C9, aromatics	10-30%
	inhalation: LC50 = 6193 mg/l (vapours); dermal: LD50 = 3160 mg/kg; oral: LD50 = 3492 mg/kg		
	919-446-0	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics,aromatic	5-10 %
	inhalation: LC50 = 13,1 mg/l (vapours); dermal: LD50 = 3400 mg/kg; oral: LD50 = 15000 mg/kg		

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Provide fresh air. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After contact with skin

After contact with skin, wash immediately with: Water. Change contaminated clothing.

After contact with eyes

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

After ingestion

If swallowed, immediately drink: Water.

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

No data available

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2). Foam. Extinguishing powder.

Unsuitable extinguishing media

Water with tenside additive. Water.

5.2. Special hazards arising from the substance or mixture

Combustible. Vapours may form explosive mixtures with air. Heating causes rise in pressure with risk of bursting.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Remove all sources of ignition. Provide adequate ventilation. Wear a self-contained breathing apparatus and chemical protective clothing.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Explosion hazard.

6.3. Methods and material for containment and cleaning up

For containment

For cleaning up Wash with plenty of water.

For cleaning up

For cleaning up Wash with plenty of water.

Other information

Ventilate affected area.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from sources of ignition - No smoking.

Hints on joint storage

Do not store together with: Material, rich in oxygen, oxidizing.

Further information on storage conditions

Recommended storage temperature 20°C

7.3. Specific end use(s)

.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
106-97-8	Butane	600	1450		TWA (8 h)	WEL
		750	1810		STEL (15 min)	WEL

8.2. Exposure controls





Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tightly sealed safety glasses.

Hand protection

EN ISO 374 Tested protective gloves are to be worn: NBR (Nitrile rubber) For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. NBR (Nitrile rubber)

Skin protection

Protective clothing:

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Aerosol
Colour:	colourless

Odour:	characteristic	
		Test method
Boiling point or initial boiling point and boiling range:	-0,5 °C	
Lower explosion limits:	1,2 vol. %	
Upper explosion limits:	9,4 vol. %	
Flash point:	<0 °C	
Auto-ignition temperature:	300 °C	
Vapour pressure: (at 20 °C)	2100 hPa	
Vapour pressure: (at 50 °C)	4900 hPa	
Density (at 20 °C):	0,79 g/cm³	

9.2. Other information

Information with regard to physical hazard classes

Sustaining combustion: Not sustaining combustion

Other safety characteristics

Softening point: DIN EN 1238

Further Information

Keine weiteren relevanten Informationen verfügbar.
No further relevant information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

No data available

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Keep away from heat. Ignition hazard.

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

No data available

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

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

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation gas) > 20000 ppm

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
	Hydrocarbons, C6, isoalkanes, <5% n-hexane					
	oral	LD50 mg/kg	>36750	Rat	OECD	Prüfrichtlinie 401
	dermal	LD50 mg/kg	3350	Rabbit	OECD	Prüfrichtlinie 402
	inhalation vapour	LC50 mg/l	259354	Rat	OECD	Prüfrichtlinie 403
	Hydrocarbons, C9, aromatics					
	oral	LD50 mg/kg	3492	Rat	OECD	Prüfrichtlinie 401
	dermal	LD50 mg/kg	3160	Rabbit	OECD	Prüfrichtlinie 402
	inhalation vapour	LC50	6193 mg/l	Rat	OECD	Prüfrichtlinie 403
	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics,aromatic					
	oral	LD50 mg/kg	15000	Rat	OECD	Prüfrichtlinie 401
	dermal	LD50 mg/kg	3400	Rabbit	OECD	Prüfrichtlinie 402
	inhalation vapour	LC50	13,1 mg/l	Rat	OECD	Prüfrichtlinie 403

Irritation and corrosivity

Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.
Irritating to eyes. Following inhalation: Lung irritation. Coughing. shortage of breath. After skin contact: irritant.

Sensitising effects

Based on available data, the classification criteria are not met.
Contains Enthält 2-ethylhexanoate of cobalt. Contains ethylhexanoate of cobalt. May produce a allergic reaction.. May produce an allergic reaction.
not sensitising.

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.
No data available

STOT-single exposure

May cause drowsiness or dizziness. (Hydrocarbons, C6, isoalkanes, <5% n-hexane)
No data available

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics,aromatic)
No data available

Aspiration hazard

Based on available data, the classification criteria are not met.
No data available

Information on likely routes of exposure

No data available

Specific effects in experiment on an animal

No data available

Additional information on tests

No data available

Practical experience

No data available

11.2. Information on other hazards

Other information

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
Based on the available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
	Hydrocarbons, C6, isoalkanes, <5% n-hexane						
	Acute fish toxicity	LC50	>1 mg/l	96 h	Fish		
	Acute algae toxicity	ErC50	30 mg/l	72 h	Alge		
	Acute crustacea toxicity	EC50 mg/l	3,87	48 h	Daphnia pulex (water flea)		
	Hydrocarbons, C9, aromatics						
	Acute fish toxicity	LC50	9,2 mg/l	96 h	Fish		
	Acute algae toxicity	ErC50	2,9 mg/l		Alge		
	Acute crustacea toxicity	EC50	3,2 mg/l	48 h	Daphnia pulex (water flea)		
	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics,aromatic						
	Acute fish toxicity	LC50 mg/l	10-30	96 h	Fish		
	Acute algae toxicity	ErC50 mg/l	0,22		Algae		
	Acute crustacea toxicity	EC50 mg/l	10-22	48 h	Daphnia pulex (water flea)		

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
106-97-8	butane	2,89
74-98-6	propane	2,36

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No data available

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

List of Wastes Code - residues/unused products

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

150104 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	UN1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2
Hazard label:	2.1



Classification code:	5F
Special Provisions:	190 327 625
Limited quantity:	1 L
Transport category:	2
Tunnel restriction code:	D

Other applicable information (land transport)

E0

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2
Hazard label:	2.1



Classification code:	5F
Special Provisions:	190 327 344 625
Limited quantity:	1 L

Other applicable information (inland waterways transport)

E0

Marine transport (IMDG)

14.1. UN number or ID number:	UN1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2
14.4. Packing group:	-
Hazard label:	2, see SP63

Special Provisions:	63, 190, 277, 327, 344, 959
Limited quantity:	See SP277
EmS:	F-D, S-U

Other applicable information (marine transport)

E0

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN1950
14.2. UN proper shipping name:	AEROSOLS, flammable
14.3. Transport hazard class(es):	2.1
Hazard label:	2.1



Special Provisions:	A145 A167	
Limited quantity Passenger:	30 kg G	
IATA-packing instructions - Passenger:		203
IATA-max. quantity - Passenger:		75 kg
IATA-packing instructions - Cargo:		203
IATA-max. quantity - Cargo:		150 kg

Other applicable information (air transport)

E0

: Y203

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: Hydrocarbons, C6, isoalkanes, <5% n-hexane

14.6. Special precautions for user

Keine weiteren relevanten Informationen verfügbar.

No further relevant information available.

14.7. Maritime transport in bulk according to IMO instruments

Keine weiteren relevanten Informationen verfügbar.

No further relevant information available.

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 28, Entry 40

Directive 2004/42/EC on VOC in paints and varnishes: 200g/400ml Dose

Additional information

Contains no REACH substances with Annex XVII restictions

Contains no substances on the Reach canditate list

Contains no Reach Annex XIV substances

National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.
Water hazard class (D):	2 - obviously hazardous to water

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Abbreviations and acronyms

Flam. Gas: Flammable gases
Aerosol: Aerosols
Flam. Liq: Flammable liquids
Asp. Tox: Aspiration hazard
Skin Irrit: Skin irritation
Eye Irrit: Eye irritation
Skin Sens: Skin sensitisation
Repr: Reproductive toxicity
STOT SE: Specific target organ toxicity - single exposure
STOT RE: Specific target organ toxicity - repeated exposure
Aquatic Acute: Acute aquatic hazard
Aquatic Chronic: Chronic aquatic hazard

Relevant H and EUH statements (number and full text)

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360	May damage fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH208	Contains Enthält 2-ethylhexanoate of cobalt. Contains ethylhexanoate of cobalt. May produce a allergic reaction.. May produce an allergic reaction.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)