according to Regulation (EC) No 1907/2006

Durolan Die spacer

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

1.1. Product identifier

Durolan Die spacer

Further trade names

-blue, -red, -silver, -clear, -beige

Product code:

25006 UFI:

FWS2-D08S-X00G-8PP0

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

Use of the substance/mixture

Reserved for industrial and professional use.

1.3. Details of the supplier of the safety data sheet

1.3. Details of the supplier of the	e Salely uala Sheel	
Company name:	DFS-DIAMON GmbH	
Street:	Ländenstr. 1	
Place:	D-93339 Riedenburg	
Telephone:	+49 (0)9442 9189 0	Telefax: +49 (0)9442 9189 37
e-mail:	info@dfs-diamon.de	
Contact person:	Armin Aunkofer	
e-mail:	armin.aunkofer@dfs-diamon.de	
Internet:	www.dfs-diamon.de	
1.4. Emergency telephone	24 hour Emergency Contact: +49 (0)	700 24112112 (DFS)
number:	+1 872 5888271	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

ethyl acetate

acetone; propan-2-one; propanone

propan-2-ol; isopropyl alcohol; isopropanol

Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified

Signal word:

Pictograms:



according to Regulation (EC) No 1907/2006

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Hazard statements

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
Precautionary statemer	nts
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P235	Store in a well-ventilated place. Keep cool.
Special labelling of cert	ain mixtures

Special labelling of certain mixtures

Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

EUH066

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No	0 1272/2008)		
141-78-6	ethyl acetate			25 - 50 %
	205-500-4	607-022-00-5		
	Flam. Liq. 2, Eye Irrit. 2, STOT SE	3; H225 H319 H336 EUH	066	
67-64-1	acetone; propan-2-one; propanon	e		12,5 - 25 %
	200-662-2	606-001-00-8	01-2119471330-49	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE	3; H225 H319 H336 EUH	066	
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			12,5 - 20 %
	200-661-7	603-117-00-0	01-2119457558-25	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE	3; H225 H319 H336		
108-65-6	2-methoxy-1-methylethyl acetate			5 - 20 %
	203-603-9	607-195-00-7	01-2119475791-29	
	Flam. Liq. 3; H226			
9004-70-0	nitrocellulose			1 - 5 %
	Flam. Sol. 1; H228			
64742-95-6	Solvent naphtha (petroleum), light	arom.; Low boiling point na	aphtha - unspecified	0,01 - < 2,5 %
	265-199-0	649-356-00-4	01-2119455851-35	
	Flam. Liq. 3, STOT SE 3, STOT S H411	E 3, Asp. Tox. 1, Aquatic C	hronic 2; H226 H335 H336 H304	

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

SECTION 4: First aid measures

4.1. Description of first aid measures

according to Regulation (EC) No 1907/2006

Durolan Die spacer

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General information

When in doubt or if symptoms are observed, get medical advice.

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. If experiencing respiratory symptoms: Call a doctor.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person or a person with cramps. Seek medical advice immediately.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet, Carbon dioxide (CO2), alcohol resistant foam, Extinguishing powder. Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Highly flammable. Vapours are heavier than air, spread along floors and form explosive mixtures with air. In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO2), Nitrogen oxides (NOx), Pyrolysis products, toxic

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Full protection suit.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Evacuate area.

For non-emergency personnel

Remove all sources of ignition. Provide adequate ventilation. Use personal protection equipment.

For emergency responders

Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Danger of explosion

6.3. Methods and material for containment and cleaning up

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Safety Data Sheet

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For containment

Stop leak if safe to do so. Cover drains.

For cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Ventilate affected area.

Other information

Use non-sparking tools.

Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Further information on handling

Never use pressure to empty container.

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 heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances. Strong acid, Strong alkali.

Further information on storage conditions

Keep away from heat. Protect from direct sunlight. storage temperature: 15 - 30°C

7.3. Specific end use(s)

Reserved for industrial and professional use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

according to Regulation (EC) No 1907/2006

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Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
108-65-6	2-Methoxy-1-methylethylacetate	50	275		TWA (8 h)	
		100	550		STEL (15 min)	
67-64-1	Acetone	500	1210		TWA (8 h)	
141-78-6	Ethyl acetate	200	734		TWA (8 h)	
		400	1468		STEL (15 min)	
67-63-0	Isopropyl alcohol	200	-		TWA (8 h)	
		400	-		STEL (15 min)	

Biological limit values

CAS No	Substance	Parameter	Value	Test material	Sampling time
67-64-1	Acetone	Acetone	50 mg/L	Urine	End of shift
67-63-0	2-Propanol	Acetone	40 mg/L		End of shift at end of workweek

DNEL/DMEL values

CAS No	Substance	-	-	
DNEL type		Exposure route	Effect	Value
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			
Worker DNEL,	long-term	dermal	systemic	888 mg/kg bw/day
Worker DNEL,	long-term	inhalation	systemic	500 mg/m³

PNEC values

CAS No	Substance	
Environmental	compartment	Value
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	
Freshwater		140,9 mg/l
Freshwater (intermittent releases) 140,9 mg/l		140,9 mg/l
Marine water 140,9 mg/l		140,9 mg/l
Marine sediment 552 mg/kg		552 mg/kg
Micro-organisms in sewage treatment plants (STP) 2251 mg/l		2251 mg/l
Soil 28 mg/kg		28 mg/kg

8.2. Exposure controls









Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles. Tightly sealed safety glasses. (EN 166)

Hand protection

Wear suitable gloves tested to EN374.

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When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Respiratory protection necessary at: exceeding exposure limit values

Thermal hazards

Flame-retardant protective clothing. Wear anti-static footwear and clothing

Environmental exposure controls

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid	
Colour:	According to product specification	
Odour:	characteristic	
Odour threshold:	not determined	
		Test method
Changes in the physical state		
Melting point/freezing point:	not determined	
Boiling point or initial boiling point and boiling range:	(Acetone) 56 °C	
Flash point:	- 18 °C	
Flammability		
Solid/liquid:	not applicable	
Gas:	not applicable	
Lower explosion limits:	0,8 vol. %	
Upper explosion limits:	12,8 vol. %	
Auto-ignition temperature:	315 °C	
Decomposition temperature:	not determined	
pH-Value (at 20 °C):	not applicable	
Viscosity / kinematic:	not determined	
Flow time:	20 s (4 mm)	DIN 53211
Water solubility:	easily soluble	
Solubility in other solvents not determined		
Partition coefficient n-octanol/water:	not determined	
Vapour pressure: (at 20 °C)	65 - 75 hPa	
Density (at 20 °C):	0,8 - 1 g/cm³	
Relative vapour density:	not determined	
Particle characteristics:	not applicable	

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9.2. Other information

Other safety characteristics

Danger of explosion: Vapours can form explosive mixtures with air.

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Vapours can form explosive mixtures with air. Exothermic reaction with: Strong acid, Strong alkali, Oxidizing agents, strong.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Keep away from heat. Protect from direct sunlight.

10.5. Incompatible materials

Oxidising agent. Pyrophoric or self-heating substances. Strong acid, Strong alkali

10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO2), Nitrogen oxides (NOx), Pyrolysis products, toxic

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

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

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

May cause drowsiness or dizziness. (ethyl acetate; acetone; propan-2-one; propanone)

STOT-repeated exposure

Repeated exposure may cause skin dryness or cracking.

Aspiration hazard

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

Information on likely routes of exposure

oral, Skin contact, Eye contact, Inhalation.

11.2. Information on other hazards

Endocrine disrupting properties

No information available.

SECTION 12: Ecological information

12.1. Toxicity

The product is not: Ecotoxic.

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12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

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

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 information available.

Further information

Avoid release to the environment.

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.

Contaminated packaging

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:	UN 1263
14.2. UN proper shipping name:	PAINT
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3
Classification code:	F1
Special Provisions:	163 367 640D 650
Limited quantity:	5 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	33
Tunnel restriction code:	D/E
Inland waterways transport (ADN)	
14.1. UN number or ID number:	UN 1263
14.2. UN proper shipping name:	Paint
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3

according to Regulation (EC) No 1907/2006

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	3		
Classification code:	F1		
Special Provisions:	163 367 640D 650		
Limited quantity:	5 L		
Excepted quantity:	E2		
Marine transport (IMDG)			
<u>14.1. UN number or ID number:</u>	UN 1263		
14.2. UN proper shipping name:	PAINT		
14.3. Transport hazard class(es):	3 II		
<u>14.4. Packing group:</u> Hazard label:	3		
	3		
Marina nallutant:			
Marine pollutant: Special Provisions:	- 163, 367		
Limited quantity:	5 L		
Excepted quantity:	E2		
EmS:	F-E, S-E		
Air transport (ICAO-TI/IATA-DGR)			
14.1. UN number or ID number:	UN 1263		
14.2. UN proper shipping name:	PAINT		
14.3. Transport hazard class(es):	3		
14.4. Packing group:			
Hazard label:	3		
Special Provisions:	A3 A72 A192		
Limited quantity Passenger:	1 L		
Passenger LQ:	Y341		
Excepted quantity: IATA-packing instructions - Passenger:	E2	353	
IATA-packing instructions - Passenger:		555 5 L	
IATA-packing instructions - Cargo:		364	
IATA-max. quantity - Cargo:		50 L	
14.5. Environmental hazards			
ENVIRONMENTALLY HAZARDOUS:	No		
14.6. Special precautions for user			
Warning: flammable liquids. Vapours c	an form explosive mixtur	res with air.	
14.7. Maritime transport in bulk according to			
not applicable			
SECTION 15: Regulatory information			

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

EU regulatory information

according to Regulation (EC) No 1907/2006

Durolan Die spacer

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Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75 2010/75/EU (VOC): Information according to 2012/18/EU (SEVESO III):

<= 86 % P5c FLAMMABLE LIQUIDS

National regulatory information

Employment restrictions:

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Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). 2 - obviously hazardous to water

Water hazard class (D): 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,2,4,5,6,7,8,9,10,11,12,13,14,15,16.

Abbreviations and acronyms

CLP: Classification, labelling and Packaging REACH: Registration, Evaluation and Authorization of Chemicals GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals UN: United Nations CAS: Chemical Abstracts Service DNEL: Derived No Effect Level DMEL: Derived Minimal Effect Level PNEC: Predicted No Effect Concentration ATE: Acute toxicity estimate LC50: Lethal concentration. 50% LD50: Lethal dose, 50% LL50: Lethal loading, 50% EL50: Effect loading, 50% EC50: Effective Concentration 50% ErC50: Effective Concentration 50%, growth rate NOEC: No Observed Effect Concentration BCF: Bio-concentration factor PBT: persistent, bioaccumulative, toxic vPvB: very persistent, very bioaccumulative ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) RID: Regulations concerning the international carriage of dangerous goods by rail ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures) IMDG: International Maritime Code for Dangerous Goods EmS: Emergency Schedules MFAG: Medical First Aid Guide IATA: International Air Transport Association ICAO: International Civil Aviation Organization MARPOL: International Convention for the Prevention of Marine Pollution from Ships IBC: Intermediate Bulk Container VOC: Volatile Organic Compounds SVHC: Substance of Very High Concern For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

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Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Eye Irrit. 2; H319	Calculation method
STOT SE 3; H336	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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

according to Regulation (EC) No 1907/2006

Durolan Die spacer gold

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

1.1. Product identifier

Durolan Die spacer gold

Product code:

25005 UFI:

0XT2-F0JJ-M00E-6SNS

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

Use of the substance/mixture

Reserved for industrial and professional use.

1.3. Details of the supplier of the safety data sheet

Company name:	DFS-DIAMON GmbH	
Street:	Ländenstr. 1	
Place:	D-93339 Riedenburg	
Telephone: e-mail:	+49 (0)9442 9189 0 info@dfs-diamon.de	Telefax: +49 (0)9442 9189 37
Contact person: e-mail: Internet:	Armin Aunkofer armin.aunkofer@dfs-diamon.de www.dfs-diamon.de	
1.4. Emergency telephone number:	24 hour Emergency Contact: +49 (0) +1 872 5888271	700 24112112 (DFS)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Flam. Lig. 2; H225 Eve Irrit. 2: H319 STOT SE 3; H336 Aquatic Acute 1; H400 Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

ethyl acetate acetone; propan-2-one; propanone

propan-2-ol; isopropyl alcohol; isopropanol Danger

Signal word:

Pictograms:



Hazard statements

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

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Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403+P235	Store in a well-ventilated place. Keep cool.

Special labelling of certain mixtures

EUH066

Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) I	lo 1272/2008)		
141-78-6	ethyl acetate			25 - 50 %
	205-500-4	607-022-00-5		
	Flam. Liq. 2, Eye Irrit. 2, STOT §	E 3; H225 H319 H336 EUH	066	
67-64-1	acetone; propan-2-one; propano	ne		20 - < 25 %
	200-662-2	606-001-00-8	01-2119471330-49	
	Flam. Liq. 2, Eye Irrit. 2, STOT §	E 3; H225 H319 H336 EUH	066	
67-63-0	propan-2-ol; isopropyl alcohol; is	opropanol		15 - < 20 %
	200-661-7	603-117-00-0	01-2119457558-25	
	Flam. Liq. 2, Eye Irrit. 2, STOT S	E 3; H225 H319 H336	·	
108-65-6	2-methoxy-1-methylethyl acetate	10 - < 15 %		
	203-603-9	607-195-00-7	01-2119475791-29	
	Flam. Liq. 3; H226			
7440-50-8	Copper			1 - < 5 %
	231-159-6		01-2119480154-42	
	Acute Tox. 4, Eye Irrit. 2, Aquati			
9004-70-0	nitrocellulose	1 - < 5 %		
	Flam. Sol. 1; H228			
7440-66-6	zinc powder - zinc dust (stabilise	d)		< 1 %
	231-175-3	030-001-01-9	01-2119467174-37	
	Aquatic Acute 1, Aquatic Chroni	c 1; H400 H410	·	
872-50-4	N-methyl-2-pyrrolidone; 1-methy	< 0,3 %		
	212-828-1	606-021-00-7	01-2119472430-46	
	Repr. 1B, Skin Irrit. 2, Eye Irrit. 2			

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

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Safety Data Sheet

according to Regulation (EC) No 1907/2006

Durolan Die spacer gold

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Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity		
	Specific Conc. Limits, M-factors and ATE				
7440-50-8	231-159-6	Copper	1 - < 5 %		
	oral: ATE = 500 mg/kg M acute; H400: M=10				
7440-66-6	231-175-3	zinc powder - zinc dust (stabilised)	< 1 %		
	inhalation: LC50 = 5,41 mg/l (dusts or mists); oral: LD50 = > 2000 mg/kg				
872-50-4	212-828-1 N-methyl-2-pyrrolidone; 1-methyl-2-pyrrolidone				
	inhalation: LC50 = > 5,1 mg/l (dusts or mists); dermal: LD50 = > 5000 mg/kg STOT SE 3; H335: >= 10 - 100				

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice.

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Immediately call a doctor.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Remove contact lenses, if present and easy to do. Continue rinsing. Do not subject to friction.

After ingestion

Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person or a person with cramps. Seek medical advice immediately.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet, Carbon dioxide (CO2), alcohol resistant foam, Extinguishing powder. Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Highly flammable. Vapours are heavier than air, spread along floors and form explosive mixtures with air. In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO2), Pyrolysis products, toxic, .

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Full protection suit.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Evacuate area.

For non-emergency personnel

Remove all sources of ignition. Provide adequate ventilation. Use personal protection equipment.

For emergency responders

Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Danger of explosion

6.3. Methods and material for containment and cleaning up

For containment

Stop leak if safe to do so. Cover drains.

For cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

Ventilate affected area.

Other information

Use non-sparking tools.

Clean contaminated articles and floor according to the environmental legislation. Do not subject to friction.

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Further information on handling

Never use pressure to empty container.

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 heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances. Strong acid, Strong alkali.

Further information on storage conditions

Keep away from heat. Protect from direct sunlight. storage temperature: 15 - 30°C

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7.3. Specific end use(s)

Reserved for industrial and professional use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
872-50-4	1-Methyl-2-pyrrolidone	25	101		TWA (8 h)	
108-65-6	2-Methoxy-1-methylethylacetate	50	275		TWA (8 h)	
		100	550		STEL (15 min)	
67-64-1	Acetone	500	1210		TWA (8 h)	
-	Copper compound, dusts and mists (as Cu)	-	1		TWA (8 h)	
-	Copper compounds, fume (as Cu)	-	0.2		TWA (8 h)	
7440-50-8	Copper, fume	-	0.2		TWA (8 h)	
141-78-6	Ethyl acetate	200	734		TWA (8 h)	
		400	1468		STEL (15 min)	
67-63-0	Isopropyl alcohol	200	-		TWA (8 h)	
		400	-		STEL (15 min)	

Biological limit values

CAS No	Substance	Parameter	Value	Test material	Sampling time
67-64-1	Acetone	Acetone	50 mg/L	Urine	End of shift
67-63-0	2-Propanol	Acetone	40 mg/L		End of shift at end of workweek
872-50-4	N-Methyl-2-pyrrolidone	5-HNMP	70 mg/g		End of shift (measured 2- 4hrs after the end of the shift)

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DNEL/DMEL values

CAS No	Substance						
DNEL type		Exposure route	Effect	Value			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol						
Worker DNEL	_, long-term	dermal	systemic	888 mg/kg bw/day			
Worker DNEL	_, long-term	inhalation	systemic	500 mg/m ³			
7440-50-8	Copper						
Worker DNEL	_, acute	dermal	systemic	273 mg/kg bw/day			
Worker DNEL	_, acute	inhalation	systemic	20 mg/m ³			
Worker DNEL	_, long-term	dermal	systemic	137 mg/kg bw/day			
Consumer DN	NEL, acute	dermal	systemic	273 mg/kg bw/day			
Consumer DI	NEL, acute	inhalation	systemic	20 mg/m ³			
7440-66-6	zinc powder - zinc dust (stabilised)						
Worker DNEL	_, long-term	inhalation	systemic	5 mg/m³			
Worker DNEL	_, long-term	dermal	systemic	83 mg/kg bw/day			
Consumer DN	NEL, long-term	oral	systemic	0,83 mg/kg bw/day			
Consumer DN	NEL, long-term	dermal	systemic	83 mg/kg bw/day			
Consumer DI	NEL, long-term	inhalation	systemic	2,5 mg/m ³			
872-50-4	N-methyl-2-pyrrolidone; 1-methyl-2-pyrrolidon	e					
Worker DNEL	_, long-term	dermal	systemic	4,8 mg/kg bw/day			
Worker DNEL	_, long-term	inhalation	systemic	14,4 mg/m³			
Worker DNEL	_, long-term	inhalation	local	40 mg/m ³			
Consumer D	NEL, acute	oral	systemic	26 mg/kg bw/day			
Consumer DN	NEL, long-term	dermal	systemic	2,4 mg/kg bw/day			
Consumer DN	NEL, long-term	inhalation	systemic	3,6 mg/m ³			
Consumer DI	NEL, long-term	inhalation	local	4,5 mg/m ³			

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PNEC values

CAS No	Substance					
Environmenta	l compartment	Value				
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
Freshwater		140,9 mg/l				
Freshwater (ir	ntermittent releases)	140,9 mg/l				
Marine water 140,9 m						
Marine sedim	ent	552 mg/kg				
Micro-organis	ms in sewage treatment plants (STP)	2251 mg/l				
Soil		28 mg/kg				
7440-50-8	Copper					
Freshwater		0,0078 mg/l				
Marine water		0,0052 mg/l				
Freshwater se	ediment	87 mg/kg				
Marine sedime	ent	676 mg/kg				
Micro-organis	0,230 mg/l					
Soil		65,5 mg/kg				
7440-66-6	zinc powder - zinc dust (stabilised)					
Freshwater		0,0206 mg/l				
Marine water		0,0061 mg/l				
Freshwater se	ediment	117,8 mg/kg				
Marine sedim	ent	56,5 mg/kg				
Soil		35,6 mg/kg				
872-50-4	N-methyl-2-pyrrolidone; 1-methyl-2-pyrrolidone					
Freshwater		0,25 mg/l				
Marine water		0,025 mg/l				
Freshwater se	1,09 mg/kg					
Marine sedim	ent	0,109 mg/kg				
Micro-organis	ms in sewage treatment plants (STP)	10 mg/l				
Soil		0,07 mg/kg				

8.2. Exposure controls









Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles. Tightly sealed safety glasses. (EN 166)

Hand protection

Wear suitable gloves tested to EN374.

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the

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specific working place concentration and quantity of hazardous substances. 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.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Respiratory protection necessary at: exceeding exposure limit values

Thermal hazards

Flame-retardant protective clothing. Wear anti-static footwear and clothing

Environmental exposure controls

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

9.1. Information on basic physical and c	hemical properties	
Physical state:	Liquid	
Colour:	golden	
Odour:	characteristic	
Odour threshold:	not determined	
Changes in the physical state		
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		(Acetone) 56 °C
Flash point:		- 18 °C
Flammability		
Solid/liquid:		not applicable
Gas:		not applicable
Lower explosion limits:		1,2 vol. %
Upper explosion limits:		14,3 vol. %
Auto-ignition temperature:		315 °C
Decomposition temperature:		not determined
pH-Value (at 20 °C):		not applicable
Viscosity / kinematic:		not determined
Water solubility:		easily soluble
Solubility in other solvents not determined		
Partition coefficient n-octanol/water:		not determined
Vapour pressure: (at 20 °C)		65 - 75 hPa
Density (at 20 °C):		0,8 - 1 g/cm³
Relative vapour density:		not determined
Particle characteristics:		not determined
9.2. Other information		

Other safety characteristics

Danger of explosion: Vapours can form explosive mixtures with air.

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SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable,

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Vapours can form explosive mixtures with air.

Exothermic reaction with: Strong acid, Strong alkali, Oxidizing agents, strong.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Keep away from heat. Protect from direct sunlight.

10.5. Incompatible materials

Oxidising agent. Pyrophoric or self-heating substances. Strong acid, Strong alkali

10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO2), Pyrolysis products, toxic, .

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

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

CAS No	Chemical name									
	Exposure route	Dose		Species	Source	Method				
7440-50-8	Copper	Copper								
	oral	ATE mg/kg	500							
7440-66-6	zinc powder - zinc dust (s	stabilised)								
	oral	LD50 mg/kg	> 2000	Rat	Manufacturer					
	inhalation (4 h) dust/mist	LC50	5,41 mg/l	Rat	Manufacturer					
872-50-4	N-methyl-2-pyrrolidone; 1	-methyl-2-py	/rrolidone	-	-					
	dermal	LD50 mg/kg	> 5000	Rat	Manufacturer	OECD 402				
	inhalation (4 h) dust/mist	LC50 mg/l	> 5,1	Rat	Manufacturer	OECD 403				

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

May cause drowsiness or dizziness. (ethyl acetate; acetone; propan-2-one; propanone)

STOT-repeated exposure

Repeated exposure may cause skin dryness or cracking.

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Aspiration hazard

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

Information on likely routes of exposure

oral, Skin contact, Eye contact, Inhalation.

11.2. Information on other hazards

Endocrine disrupting properties

No information available.

SECTION 12: Ecological information

12.1. Toxicity

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

CAS No	Chemical name							
	Aquatic toxicity	Dose	Dose		Species	Source	Method	
872-50-4	N-methyl-2-pyrrolidone; 1-methyl-2-pyrrolidone							
	Acute fish toxicity	LC50 mg/l	> 500		Oncorhynchus mykiss (Rainbow trout)	Manufacturer		
	Acute algae toxicity	ErC50 mg/l	600,5		Desmodesmus subspicatus	Manufacturer	DIN 38412 / part 9	
	Crustacea toxicity	NOEC mg/l	12,5		Daphnia magna (Big water flea)	Manufacturer	OECD 211	

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name				
	Method	Value		d	Source
	Evaluation				
872-50-4	N-methyl-2-pyrrolidone; 1-methyl-2-pyrrolidone				
	OECD 301C	73 %		28	Manufacturer
	Readily biodegradable (according to OECD criteria).				

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
872-50-4	N-methyl-2-pyrrolidone; 1-methyl-2-pyrrolidone	-0,46

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

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

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 information available.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

according to Regulation (EC) No 1907/2006

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Disposal recommendations

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

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

Land transport (ADR/RID)	
14.1. UN number or ID number:	UN 1263
14.2. UN proper shipping name:	PAINT
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3
	**
	$\langle - \rangle$
	3
Classification code:	F1
Special Provisions:	163 367 640D 650
Limited quantity:	5 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	33
Tunnel restriction code:	D/E
	DIL
Inland waterways transport (ADN)	
<u>14.1. UN number or ID number:</u>	UN 1263
14.2. UN proper shipping name:	Paint
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3
	3
Classification code:	F1
Special Provisions:	163 367 640D 650
Limited quantity:	5 L
Excepted quantity:	E2
Marine transport (IMDG)	
14.1. UN number or ID number:	UN 1263
14.2. UN proper shipping name:	PAINT
14.3. Transport hazard class(es):	3
14.4. Packing group:	U U
Hazard label:	3
	ა
	$\langle \underline{\circ} \rangle$
	3
Marine pollutant:	Р
Special Provisions:	163, 367
Limited quantity:	5 L
Excepted quantity:	E2
EmS:	F-E, S-E
Air transport (ICAO-TI/IATA-DGR)	, ~ _
Air transport (ICAC) $II/IATA D(GR)$	

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<u>14.1. UN number or ID number:</u> <u>14.2. UN proper shipping name:</u> <u>14.3. Transport hazard class(es):</u> <u>14.4. Packing group:</u> Hazard label:	UN 1263 PAINT 3 II 3		
Special Provisions: Limited quantity Passenger: Passenger LQ: Excepted quantity: IATA-packing instructions - Passenger: IATA-max. quantity - Passenger: IATA-packing instructions - Cargo: IATA-max. quantity - Cargo:	A3 A72 A192 1 L Y341 E2	353 5 L 364 60 L	
14.5. Environmental hazards			
ENVIRONMENTALLY HAZARDOUS:	Yes		<u>¥</u> 2
Danger releasing substance:	Copper, zinc powde	er - zinc dust (stabilised)	\checkmark
Warning: flammable liquids. 14.7. Maritime transport in bulk according t not applicable	o IMO instruments		
Warning: flammable liquids. 14.7. Maritime transport in bulk according to not applicable SECTION 15: Regulatory information			
14.7. Maritime transport in bulk according t	Ilations/legislation sp		<u>or mixture</u>
Warning: flammable liquids. 14.7. Maritime transport in bulk according to not applicable SECTION 15: Regulatory information 15.1. Safety, health and environmental regu- EU regulatory information Authorisations (REACH, annex XIV): Substances of very high concern, SVH	Ilations/legislation sp IC (REACH, article 59) rrrolidone : Entry 72, Entry 75 < 88 %		or mixture
Warning: flammable liquids. 14.7. Maritime transport in bulk according to not applicable SECTION 15: Regulatory information 15.1. Safety, health and environmental regu- EU regulatory information Authorisations (REACH, annex XIV): Substances of very high concern, SVH N-methyl-2-pyrrolidone; 1-methyl-2-py Restrictions on use (REACH, annex XVII) Entry 3, Entry 30, Entry 40, Entry 71, 1 2010/75/EU (VOC): Information according to 2012/18/EU (SEVESO III):	Ilations/legislation sp IC (REACH, article 59) rrrolidone : Entry 72, Entry 75 < 88 % E1 Hazardous to the):	or mixture
Warning: flammable liquids. 14.7. Maritime transport in bulk according to not applicable SECTION 15: Regulatory information 15.1. Safety, health and environmental regu- EU regulatory information Authorisations (REACH, annex XIV): Substances of very high concern, SVH N-methyl-2-pyrrolidone; 1-methyl-2-py Restrictions on use (REACH, annex XVII) Entry 3, Entry 30, Entry 40, Entry 71, 1 2010/75/EU (VOC): Information according to 2012/18/EU (SEVESO III): Additional information:	Ilations/legislation sp IC (REACH, article 59) rrolidone : Entry 72, Entry 75 < 88 % E1 Hazardous to the P5c Observe restrictions): e Aquatic Environment s to employment for juven	or mixture
Warning: flammable liquids. 14.7. Maritime transport in bulk according to not applicable SECTION 15: Regulatory information 15.1. Safety, health and environmental regu- EU regulatory information Authorisations (REACH, annex XIV): Substances of very high concern, SVH N-methyl-2-pyrrolidone; 1-methyl-2-py Restrictions on use (REACH, annex XVII) Entry 3, Entry 30, Entry 40, Entry 71, 1 2010/75/EU (VOC): Information according to 2012/18/EU (SEVESO III): Additional information: National regulatory information Employment restrictions:	Ilations/legislation sp IC (REACH, article 59) rrolidone : Entry 72, Entry 75 < 88 % E1 Hazardous to the P5c Observe restrictions work protection guid): e Aquatic Environment s to employment for juven deline' (94/33/EC).	
Warning: flammable liquids. 14.7. Maritime transport in bulk according to not applicable SECTION 15: Regulatory information 15.1. Safety, health and environmental regu- EU regulatory information Authorisations (REACH, annex XIV): Substances of very high concern, SVH N-methyl-2-pyrrolidone; 1-methyl-2-py Restrictions on use (REACH, annex XVII) Entry 3, Entry 30, Entry 40, Entry 71, 1 2010/75/EU (VOC): Information according to 2012/18/EU (SEVESO III): Additional information: National regulatory information	Ilations/legislation sp IC (REACH, article 59) rrolidone : Entry 72, Entry 75 < 88 % E1 Hazardous to the P5c Observe restrictions): e Aquatic Environment s to employment for juven deline' (94/33/EC).	

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,2,4,5,6,7,8,9,10,11,12,13,14,15,16.

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Abbreviations and acronyms CLP: Classification, labelling and Packaging REACH: Registration, Evaluation and Authorization of Chemicals GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals UN: United Nations CAS: Chemical Abstracts Service DNFL: Derived No Effect Level DMEL: Derived Minimal Effect Level PNEC: Predicted No Effect Concentration ATE: Acute toxicity estimate LC50: Lethal concentration. 50% LD50: Lethal dose, 50% LL50: Lethal loading, 50% EL50: Effect loading, 50% EC50: Effective Concentration 50% ErC50: Effective Concentration 50%, growth rate NOEC: No Observed Effect Concentration BCF: Bio-concentration factor PBT: persistent, bioaccumulative, toxic vPvB: very persistent, very bioaccumulative ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) RID: Regulations concerning the international carriage of dangerous goods by rail ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures) IMDG: International Maritime Code for Dangerous Goods EmS: Emergency Schedules MFAG: Medical First Aid Guide IATA: International Air Transport Association ICAO: International Civil Aviation Organization MARPOL: International Convention for the Prevention of Marine Pollution from Ships IBC: Intermediate Bulk Container VOC: Volatile Organic Compounds SVHC: Substance of Very High Concern For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations). Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

ClassificationClassification procedureFlam. Liq. 2; H225On basis of test dataEye Irrit. 2; H319Calculation methodSTOT SE 3; H336Calculation methodAquatic Acute 1; H400Calculation methodAquatic Chronic 2; H411Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

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 H360D
 May damage the unborn child.

 H400
 Very toxic to aquatic life.

 H410
 Very toxic to aquatic life with long lasting effects.

 H411
 Toxic to aquatic life with long lasting effects.

 EUH066
 Repeated exposure may cause skin dryness or cracking.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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

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

1.1. Product identifier

Durolan Thinner

Product code:

25010 UFI:

U4H3-G01M-800P-K3KQ

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

Use of the substance/mixture

Coatings and paints, thinners, paint removers Reserved for industrial and professional use.

1.3. Details of the supplier of the safety data sheet

Company name:	DFS-DIAMON GmbH	
Street:	Ländenstr. 1	
Place:	D-93339 Riedenburg	
Telephone:	+49 (0)9442 9189 0	Telefax: +49 (0)9442 9189 37
e-mail:	info@dfs-diamon.de	
Contact person:	Armin Aunkofer	
e-mail:	armin.aunkofer@dfs-diamon.de	
Internet:	www.dfs-diamon.de	
1.4. Emergency telephone	24 hour Emergency Contact: +49 (0) 700 2	24112112 (DFS)
<u>number:</u>	+1 872 5888271	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Flam. Lig. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

ethyl acetate acetone; propan-2-one; propanone propan-2-ol; isopropyl alcohol; isopropanol Danger

Signal word:

Pictograms:



Hazard statements

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Precautionary statements

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

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	smoking.			
P233	Keep container tightly closed.			
P280	Wear protective gloves and eye/face protection.			
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if			
	present and easy to do. Continue rinsing.			
P337+P313	If eye irritation persists: Get medical advice/attention.			
P403+P235	Store in a well-ventilated place. Keep cool.			
Special labelling of certain mixtures				

EUH066

Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No			
141-78-6	ethyl acetate			35 - < 40 %
	205-500-4	607-022-00-5		
	Flam. Liq. 2, Eye Irrit. 2, STOT SE	E 3; H225 H319 H336 EUH066	*	
67-64-1	acetone; propan-2-one; propanon	e		35 - < 40 %
	200-662-2	606-001-00-8	01-2119471330-49	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			20 - < 25 %
	200-661-7	603-117-00-0	01-2119457558-25	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE			
108-65-6	2-methoxy-1-methylethyl acetate			10 - < 15 %
	203-603-9	607-195-00-7	01-2119475791-29	
	Flam. Liq. 3; H226			

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice.

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. If experiencing respiratory symptoms: Call a doctor.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Remove contact lenses, if present and easy to do. Continue rinsing.

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After ingestion

Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person or a person with cramps. Seek medical advice immediately.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet, Carbon dioxide (CO2), alcohol resistant foam, Extinguishing powder. Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Highly flammable. Vapours are heavier than air, spread along floors and form explosive mixtures with air. In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO2), Pyrolysis products, toxic.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Full protection suit.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Evacuate area.

For non-emergency personnel

Remove all sources of ignition. Provide adequate ventilation. Use personal protection equipment.

For emergency responders

Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Danger of explosion

6.3. Methods and material for containment and cleaning up

For containment

Stop leak if safe to do so. Cover drains.

For cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Ventilate affected area.

Other information

Use non-sparking tools.

Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8

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Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Further information on handling

Never use pressure to empty container.

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 heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances. Strong acid, Strong alkali.

Further information on storage conditions

Keep away from heat. Protect from direct sunlight. storage temperature: 15 - 30°C

7.3. Specific end use(s)

Coatings and paints, thinners, paint removers Reserved for industrial and professional use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
108-65-6	2-Methoxy-1-methylethylacetate	50	275		TWA (8 h)	
		100	550		STEL (15 min)	
67-64-1	Acetone	500	1210		TWA (8 h)	
141-78-6	Ethyl acetate	200	734		TWA (8 h)	
		400	1468		STEL (15 min)	
67-63-0	Isopropyl alcohol	200	-		TWA (8 h)	
		400	-		STEL (15 min)	

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Biological limit values

CAS No	D	Substance	Parameter	Value	Test material	Sampling time
67-64-1	l	Acetone	Acetone	50 mg/L	Urine	End of shift
67-63-0)	2-Propanol	Acetone	40 mg/L	-	End of shift at end of workweek

DNEL/DMEL values

CAS No	Substance					
DNEL type		Exposure route	Effect	Value		
67-63-0	7-63-0 propan-2-ol; isopropyl alcohol; isopropanol					
Worker DNEL,	long-term	dermal	systemic	888 mg/kg bw/day		
Worker DNEL, long-term		inhalation	systemic	500 mg/m³		

PNEC values

CAS No	Substance	
Environmental compartment Value		Value
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	
Freshwater		140,9 mg/l
Freshwater (intermittent releases)		140,9 mg/l
Marine water		140,9 mg/l
Marine sediment		552 mg/kg
Micro-organisms in sewage treatment plants (STP)		2251 mg/l
Soil 2		28 mg/kg

8.2. Exposure controls









Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Use eye protection according to EN 166. Tightly sealed safety glasses.

Hand protection

Wear suitable gloves tested to EN374.

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Respiratory protection necessary at: exceeding exposure limit values

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Thermal hazards

Flame-retardant protective clothing. Wear anti-static footwear and clothing

Environmental exposure controls

Avoid release to the environment.

SECTION 9: Physical and chemical properties

Physical state: Liquid		
Colour:	colourless	
Odour:	characteristic	
Odour threshold:	not determined	
Changes in the physical state		
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		(Acetone) 56 °C
Flash point:		- 18 °C
Flammability		
Solid/liquid:		not applicable
Gas:		not applicable
Lower explosion limits:		1,5 vol. %
Upper explosion limits:		12,8 vol. %
Auto-ignition temperature:		315 °C
Decomposition temperature:		not determined
pH-Value:		not determined
Viscosity / kinematic:		not determined
Water solubility:		easily soluble
Solubility in other solvents not determined		
Partition coefficient n-octanol/water:		not determined
Vapour pressure: (at 20 °C)		96,4 hPa
Density (at 20 °C):		1 g/cm³
Relative vapour density:		not determined
Particle characteristics:		not applicable

9.2. Other information

Other safety characteristics

Danger of explosion: Vapours can form explosive mixtures with air. Dynamic viscosity (20°C): 0,5 mPa*s

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

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Vapours can form explosive mixtures with air.

Exothermic reaction with: Strong acid, Strong alkali, Oxidizing agents, strong.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Keep away from heat. Protect from direct sunlight.

10.5. Incompatible materials

Oxidising agent. Pyrophoric or self-heating substances. Strong acid, Strong alkali

10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO2), Pyrolysis products, toxic.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

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

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

May cause drowsiness or dizziness. (ethyl acetate; acetone; propan-2-one; propanone; propan-2-ol; isopropyl alcohol; isopropanol)

STOT-repeated exposure

Repeated exposure may cause skin dryness or cracking.

Aspiration hazard

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

Information on likely routes of exposure

oral, Skin contact, Eye contact, Inhalation.

11.2. Information on other hazards

Endocrine disrupting properties

No information available.

SECTION 12: Ecological information

12.1. Toxicity

The product is not: Ecotoxic.

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

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

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.

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12.7. Other adverse effects

No information available.

Further information

Avoid release to the environment.

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.

Contaminated packaging

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:	UN 1263
14.2. UN proper shipping name:	PAINT RELATED MATERIAL
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3
Classification code:	F1
Special Provisions:	163 367 640D 650
Limited quantity:	5 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	33
Tunnel restriction code:	D/E
Inland waterways transport (ADN)	
<u>14.1. UN number or ID number:</u>	UN 1263
14.2. UN proper shipping name:	Paint related material
14.3. Transport hazard class(es):	3
14.4. Packing group:	
Hazard label:	3
Classification code:	F1
Special Provisions:	163 367 640D 650
Limited quantity:	5 L
Excepted quantity:	E2
Marine transport (IMDG)	
14.1. UN number or ID number:	UN 1263
14.2. UN proper shipping name:	PAINT RELATED MATERIAL
14.3. Transport hazard class(es):	3
14.4. Packing group:	
Hazard label:	3
	-

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Marine pollutant: Special Provisions: Limited quantity: Excepted quantity: EmS:	- 163, 367 5 L E2 F-E, S-E	
Air transport (ICAO-TI/IATA-DGR) <u>14.1. UN number or ID number:</u> <u>14.2. UN proper shipping name:</u> <u>14.3. Transport hazard class(es):</u> <u>14.4. Packing group:</u> Hazard label:	UN 1263 PAINT RELATED MATERIAL 3 II 3	
Special Provisions: Limited quantity Passenger: Passenger LQ: Excepted quantity: IATA-packing instructions - Passenger: IATA-max. quantity - Passenger: IATA-packing instructions - Cargo: IATA-max. quantity - Cargo:	A3 A72 A192 1 L Y341 E2 353 5 L 364 60 L	
14.5. Environmental hazards		
ENVIRONMENTALLY HAZARDOUS:	No	
14.6. Special precautions for user Warning: flammable liquids. Vapours of 14.7. Maritime transport in bulk according to not applicable SECTION 15: Regulatory information	•	
15.1. Safety, health and environmental regu	lations/legislation specific for the substance or mixture	
EU regulatory information Restrictions on use (REACH, annex XVII): Entry 3, Entry 40, Entry 75 2010/75/EU (VOC):	100 %	
Information according to 2012/18/EU (SEVESO III):	P5c FLAMMABLE LIQUIDS	
National regulatory information		
Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juve work protection guideline' (94/33/EC).	nile
Water hazard class (D):	1 - slightly hazardous to water	
15.2. Chemical safety assessment		
Chemical safety assessments for subs	stances in this mixture were not carried out.	

SECTION 16: Other information

Changes

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This data sheet contains changes from the previous version in section(s): 1,2,4,5,6,7,8,9,10,11,12,13,14,15,16.

Abbreviations and acronyms

CLP: Classification, labelling and Packaging REACH: Registration. Evaluation and Authorization of Chemicals GHS: Globally Harmonised System of Classification. Labelling and Packaging of Chemicals UN. United Nations CAS: Chemical Abstracts Service DNEL: Derived No Effect Level DMEL: Derived Minimal Effect Level PNEC: Predicted No Effect Concentration ATE: Acute toxicity estimate LC50: Lethal concentration, 50% LD50: Lethal dose, 50% LL50: Lethal loading, 50% EL50: Effect loading, 50% EC50: Effective Concentration 50% ErC50: Effective Concentration 50%, growth rate NOEC: No Observed Effect Concentration BCF: Bio-concentration factor PBT: persistent, bioaccumulative, toxic vPvB: very persistent, very bioaccumulative ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) RID: Regulations concerning the international carriage of dangerous goods by rail ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures) IMDG: International Maritime Code for Dangerous Goods EmS: Emergency Schedules MFAG: Medical First Aid Guide IATA: International Air Transport Association ICAO: International Civil Aviation Organization MARPOL: International Convention for the Prevention of Marine Pollution from Ships IBC: Intermediate Bulk Container VOC: Volatile Organic Compounds SVHC: Substance of Very High Concern For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Eye Irrit. 2; H319	Calculation method
STOT SE 3; H336	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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