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

· 1.1 Product identifier

· Trade name: Hobby Clear Lacquer Spray (gloss finish, silk finish, mat)

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

- No further relevant information available.
- \cdot Application of the substance / the mixture Coating material

 \cdot 1.3 Details of the supplier of the safety data sheet

• Manufacturer/Supplier: efco - creative GmbH Große Ahlmühle 10 D-76865 Rohrbach Deutschland Tel.: +49 6349 9934 0 Fax.: +49 6349 9934 26 www.efco.de info@efco.de

- Further information obtainable from: Verkauf / Sales Department Tel.: +49 6349 9934 36 Fax.: +49 6349 9934 27 E-mail: r.riols@efco.de
 1.4 Emergency telephone number: Telefonzentrale / Central Phone Switchboard
 - Tel.: +49 6349 9934 0

SECTION 2: Hazards identification

· 2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008			
Aerosol 1	Н222-Н229	Extremely flammable aerosol. Pressurised container: May burst if heated.	
Skin Irrit. 2	H315	Causes skin irritation.	
STOT SE 3	H336	May cause drowsiness or dizziness.	
Aquatic Chronic 3	H412	Harmful to aquatic life with long lasting effects.	

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

The labelling of an aspiration hazard (Asp. Tox. 1 H304) is not required for aerosols and containers with a sealed spray attachmend (Regulation (EC) 1272/2008, Annex I, 1.3.3). The product is classified and labelled according to the CLP regulation.

· Hazard pictograms



· Signal word Danger

· Hazard-determining components of labelling:				
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5% n-hexane				
<i>Hydrocarbons</i> , C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics				
n-butyl acetate				
1-ethoxypropan-2-ol				
· Hazard statements				
H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.				
H315 Causes skin irritation.				
H336 May cause drowsiness or dizziness.				
H412 Harmful to aquatic life with long lasting effects.				

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· Precautionary statements

- *P101* If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- *P211* Do not spray on an open flame or other ignition source.
- P251 Do not pierce or burn, even after use.
- P260 Do not breathe spray.
- *P271* Use only outdoors or in a well-ventilated area.
- P312 Call a POISON CENTER/doctor if you feel unwell.
- P405 Store locked up.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P501 Dispose of contents / container as special waste.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· Description:

Mixture of substances listed below with nonhazardous compounds or compounds with no duty to declare.

CAS: 106-97-8	butane	25-50%
EINECS: 203-448-7 Reg.nr.: 01-2119474691-32	🚸 Flam. Gas 1, H220; Press. Gas C, H280	
EC number: 921-024-6 Reg.nr.: 01-2119475514-35	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5% n- hexane Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	15-<20%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21	propane Flam. Gas 1, H220; Press. Gas L, H280	10-<25%
EC number: 927-241-2 Reg.nr.: 01-2119471843-32	Hydrocarbons, C9-C10, n-alkanes, isoalkanes,cyclics, <2% aromatics ♦ Flam. Liq. 3, H226; ♦ Asp. Tox. 1, H304; ♦ STOT SE 3, H336; Aquatic Chronic 3, H412	3-<10%
CAS: 123-86-4 EINECS: 204-658-1 Reg.nr.: 01-2119485493-29	n-butyl acetate 🚸 Flam. Liq. 3, H226; 🚸 STOT SE 3, H336	3-<10%
CAS: 1569-02-4 EINECS: 216-374-5	1-ethoxypropan-2-ol I -ethoxypropan-2-ol STOT SE 3, H336	3-<10%
CAS: 75-28-5 EINECS: 200-857-2 Reg.nr.: 01-2119485395-27	isobutane (<0,1% butadiene) Flam. Gas 1, H220; Press. Gas C, H280	2.5-<3%
CAS: 110-82-7 EINECS: 203-806-2	cyclohexane Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Irrit. 2, H315; STOT SE 3, H336	1-<2.5%
CAS: 110-54-3 EINECS: 203-777-6	n-hexane Flam. Liq. 2, H225; Repr. 2, H361f; STOT RE 2, H373; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	0.3-<1%

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• Additional information:

For the wording of the listed hazard phrases refer to section 16.

EC-Numbers beginning with "9" are numbers given by ECHA for the purpose of registration according REACH. Eventually mentioned CAS-numbers valid for countries which are not subject to the REACH regulation or in regulations not yet updated with the new naming convention for hydrocarbon solvents.

SECTION 4: First aid measures

• 4.1 Description of first aid measures

• General information:

Take affected persons out into the fresh air.

- Do not leave affected persons unattended.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- $\cdot \textit{After skin contact: Wash with water and so ap}$
- · After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

SECTION 5: Firefighting measures

• 5.1 Extinguishing media

• Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · 5.2 Special hazards arising from the substance or mixture Risk of bursting in case of fire heat
- 5.3 Advice for firefighters
- · Protective equipment: Wear fully protective suit.
- · Additional information Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

• 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Keep sources of ignition (flames, sparks, etc.) away. Do not use engines near by (potential source of ignition) Avoid contact with skin / eyes and inhalation.

Ensure adequate ventilation

· 6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/ surface or ground water.

· 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Let volatiles evaporate - stem up residues mechanically

- 6.4 Reference to other sections
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

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DNEL Arbeiter / Workers/ Travailleur

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	handle receptacle with care.	
	on about fire - and explosion protection: ion sources away - Do not smoke.	
	ed container: protect from sunlight and do not expose t	o temperatures exceeding 50°C, i.e. electr
	not pierce or burn, even after use.	, , , , , , , , , , , , , , , , , , ,
Do not spr	ray onto a naked flame or any incandescent material.	
	tions for safe storage, including any incompatibilities	
• Storage:		
	ents to be met by storerooms and receptacles: cool location.	
	fficial regulations on storing packagings with pressuris	ed containers.
	on about storage in one common storage facility: Store	e away from oxidising agents.
	uformation about storage conditions:	
	ool, dry conditions in well sealed receptacles. om heat and direct sunlight.	
·Recomme	nded storage temperature: 15 - 35°C, max. 50°C	
· 7.3 Specifi	ic end use(s) No further relevant information available.	
SECTIO	N 8: Exposure controls/personal protection	
·Additional	l information about design of technical facilities: No f	urther data: see item 7
	pl parameters	
	ts with limit values that require monitoring at the work	nlaco
106-97-8 l		putt.
WEL	Short-term value: 1810 mg/m ³ , 750 ppm	
11 LL	Long-term value: 1450 mg/m ³ , 600 ppm	
	Carc (if more than 0.1% of buta-1.3-diene)	
Hydrocarl	bons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5%	6 n-hexane
TWA (8H)	Long-term value: 1000 mg/m³, 250 ppm	
123-86-41	n-butyl acetate	
WEL	Short-term value: 966 mg/m ³ , 200 ppm	
	Long-term value: 724 mg/m ³ , 150 ppm	
110-54-3 1		
WEL	Long-term value: 72 mg/m ³ , 20 ppm	
· DNELs		
Hydrocarl	bons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5%	
Oral	DNEL Endverbraucher/ Consumers /Consommateur	699 mg/kg BW/ day (.)
Dermal	DNEL - Endverbraucher/ Consumers /Consommateur	699 mg/kg BW /day (.)
	DNEL Arbeiter / Workers/ Travailleur	773 mg/kg BW /day (.)
Inhalative	DNEL Endverbraucher/ Consumers /Consommateur	608 mg /m3 (.)
	DNEL Arbeiter / Workers/ Travailleur	2035 mg /m3 (.)
-	bons, C9-C10, n-alkanes, isoalkanes,cyclics, <2% aron	
Oral	DNEL Endverbraucher/ Consumers /Consommateur	300 mg/kg BW/ day (.)
Dermal	DNEL - Endverbraucher/ Consumers /Consommateur	300 mg/kg BW /day (.)
	DNEL Arbeiter / Workers/ Travailleur	300 mg/kg BW /day (.)
Inhalative	DNEL Endverbraucher/ Consumers /Consommateur	900 mg /m3 (.)
	DNEL Arbeiter / Workers/ Travailleur	1500 mg /m3 (.)
Hydrocarl	bons, C9-C11, n-alkanes, isoalkanes,cyclics, < 2% aro	
Dermal	DNEL - Endverbraucher/ Consumers /Consommateur	125 mg/kg BW /day (.)
	DNEL 4.1 : $(III 1 / T : 11)$	$125 \dots / D W / 1 \dots / $

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125 mg/kg BW/day (.)

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Inhalative DNEL Endverbraucher/ Consumers /Consommateur	(Contd. of pa 900 mg /m3 (.)
DNEL Arbeiter / Workers/ Travailleur	871 mg /m3 (.)
Additional information: The lists valid during the making were u	sed as basis.
8.2 Exposure controls	
Personal protective equipment:	
General protective and hygienic measures:	
Wash hands before breaks and at the end of work.	
Do not inhale gases / fumes / aerosols.	
Respiratory protection:	
Not necessary if room is well-ventilated.	
Use suitable respiratory protective device in case of insufficient v	entilation.
Filter AX	
Protection of hands:	
Material of gloves If contamination is possible, use gloves made of	
Penetration time of glove material > 480 min / 0,4 mm thickness	
Eye protection: Safety glasses in case of spittings	
SECTION 9: Physical and chemical properties	

Appearance:	
Form:	Aerosol
Colour:	Colourless
Odour:	Ester-like
Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling ra	nge: -44°C
Flash point:	-97°C
Ignition temperature:	240°C
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Risk of bursting at temperatures $> 50^{\circ}$ C. Damage of the containe may lead to the formation of explosive mixtures of gas/vapors wit
	air.
Explosion limits:	
Lower:	0.8 Vol %
Upper:	10.9 Vol %
Pressure (20°C)	3 - 3.5 bar
Density at 20°C:	ca. 0.667 g/cm ³
Solubility in / Miscibility with	
water:	Not miscible or difficult to mix.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Solvent content:	
Organic solvents:	42.0 %
VOC (EC)	92.5 %
	616.7 g/l
Solids content:	7.5 %
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• 9.2 Other information

No further relevant information available.

• Additional information

Vapors are heavier than air.

SECTION 10: Stability and reactivity

• 10.1 Reactivity No further relevant information available.

- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: Risk of bursting at temperatures >50°C.

· 10.3 Possibility of hazardous reactions

- By use or incidental release the formation of explosive vapor/air mixtures is possible.
- \cdot **10.4 Conditions to avoid** Avoid the use in the near of ignition sources.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

· Additional information: Stable for a storage time of min. 24 months

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

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

· LD/LC50 values relevant for classification:

106-97-8 butane

Inhalative LC50/4 h 658 mg/l (rat)

Oral LD50 > 2000 mg/kg (rat) LD50 > 2000 mg/kg (rabbit) Dermal Inhalative LC50/4 h > 25 mg/l (rat) 74-98-6 propane Inhalative LC50/4 h > 20 mg/l (rat)Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics Oral LD50 >2000 mg/kg (rat) >2000 mg/kg (rab) Dermal LD50 123-86-4 n-butyl acetate LD50 Oral 13100 mg/kg (rat) LD50 >5000 mg/kg (rabbit) Dermal Inhalative LC50/4 h > 21.0 mg/l (rat) 1569-02-4 1-ethoxypropan-2-ol LD50Oral 4900 mg/kg (rat) LD50 9500 mg/kg (rab) Dermal Inhalative LC50/4 h > 14200 mg/l (rat) 75-28-5 isobutane (<0,1% butadiene) Inhalative LC50/4 h > 20 mg/l (rat) 110-82-7 cyclohexane LD50 12705 mg/kg (rat) Oral · Primary irritant effect: · Skin corrosion/irritation Causes skin irritation. • Serious eye damage/irritation low • Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

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Trade name: Hobby Clear Lacquer Spray (gloss finish, silk finish, mat) (Contd. of page 6) · CMR effects (carcinogenity, mutagenicity and toxicity 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.* · STOT-single exposure May cause drowsiness or dizziness. · STOT-repeated exposure Based on available data, the classification criteria are not met. · Aspiration hazard Based on available data, the classification criteria are not met. **SECTION 12: Ecological information** · 12.1 Toxicity • Aquatic toxicity: Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5% n-hexane LC 50 / 96 h < 10 mg / l (fis) Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics LC 50 / 96 h > 100 mg / l (fis)· 12.2 Persistence and degradability No further relevant information available. · 12.3 Bioaccumulative potential No further relevant information available. · 12.4 Mobility in soil No further relevant information available. · Ecotoxical effects: · Remark: Harmful to fish • Additional ecological information: · General notes: Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Harmful to aquatic organisms · 12.5 Results of PBT and vPvB assessment · **PBT:** Not applicable. · vPvB: Not applicable. · 12.6 Other adverse effects No further relevant information available. **SECTION 13: Disposal considerations** · 13.1 Waste treatment methods · Recommendation empty cans: material recycling filled cans: remove in accordance with local regulations · European waste catalogue 16 00 00 WASTES NOT OTHERWISE SPECIFIED IN THE LIST

16 05 00 gases in pressure containers and discarded chemicals

16 05 04 gases in pressure containers (including halons) containing dangerous substances

• Uncleaned packaging:

• *Recommendation: Disposal must be made according to official regulations.*

SECTION 14: Transport information

· 14.1 UN-Number

· ADR, IMDG, IATA

UN1950

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Safety data sheet according to 1907/2006/EC, Article 31

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14.2 UN proper shipping name	
ADR	1950 AEROSOLS
IMDG	AEROSOLS
IATA	AEROSOLS, flammable
14.3 Transport hazard class(es)	
ADR	
Class	2 5F Gases.
Label	2.1
IMDG, IATA	
Chara	2.7
Class Label	2.1 2.1
14.4 Packing group	
ADR, IMDG, IATA	Void
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user	Warning: Gases.
Danger code (Kemler):	-
EMS Number:	F- D , S - U
Stowage Code	SW1 Protected from sources of heat.
Segregation Code	SW22 For AEROSOLS with a maximum capacity of 1 litr Category A. For AEROSOLS with a capacity above 1 litr Category B. For WASTE AEROSOLS: Category C, Clea of living quarters. SG69 For AEROSOLS with a maximum capacity of 1 litr Segregation as for class 9. Stow "separated from" class except for division 1.4. For AEROSOLS with a capaci above 1 litre: Segregation as for the appropria subdivision of class 2. For WASTE AEROSOLS Segregation as for the appropriate subdivision of class 2.
14.7 Transport in bulk according to Ann Marpol and the IBC Code	ex II of Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E0
	Not permitted as Excepted Quantity
Transport category	$\frac{1}{2}$
Tunnel restriction code	D
Remarks:	Transportation as "LIMITED QUANTITIES" accordin
	3.4 ADR is possible.
	Sole marking: Sign for "Limited Quantities" (rhombi with two black edges)
	Entry in the transportation document: Transportation
	according chapter 3.4 ADR Tunnel category "E" in case of a load of 8000 kg (rgross
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	weight) or more.
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E0 Not permitted as Excepted Quantity
· UN ''Model Regulation'':	UN1950, AEROSOLS, ENVIRONMENTALLY HAZARDOUS, 2.1

SECTION 15: Regulatory information

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

· National regulations:

• Information about limitation of use: Employment restrictions concerning juveniles must be observed.

Class	Share in %
Ι	0.5
NK	39.0

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H361f Suspected of damaging fertility.

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

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.

H412 Harmful to aquatic life with long lasting effects.

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU) DNEL: Derived No-Effect Level (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1: Flammable gases – Category 1

Aerosol 1: Aerosols – Category 1 Press. Gas C: Gases under pressure – Compressed gas

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[·] Abbreviations and acronyms:

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Press. Gas L: Gases under pressure – Liquefied gas
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
Skin Irrit. 2: Skin corrosion/irritation – Category 2
<i>Repr. 2: Reproductive toxicity – Category 2</i>
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
* Data compared to the previous version altered.