Safety Data Sheet

according to Regulation (EC) No 1907/2006

Diamantspray nicht brennbar

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

1.1. Product identifier

Diamantspray nicht brennbar

Product code:

11170

UFI: FM13-X0DH-H001-SE3T

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

Use of the substance/mixture

Restricted to professional users.

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 number:

24 hour Emergency Contact: +49 (0) 700 24112112 (DFS)
+1 872 5888271

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Aerosol 3; H229
Eye Irrit. 2; H319
STOT SE 3; H336
Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

pentane
butanone; ethyl methyl ketone

Signal word: Warning

Pictograms:



Hazard statements

H229	Pressurised container: May burst if heated.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

	smoking.
P251	Do not pierce or burn, even after use.
P264	Wash hands thoroughly after handling.
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.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Special labelling of certain mixtures

7 % by mass of the contents are flammable.

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 1272/2008)			
64-17-5	ethanol, ethyl alcohol			1 - < 5 %
	200-578-6	603-002-00-5	01-2119457610-43	
	Flam. Liq. 2, Eye Irrit. 2; H225 H319			
109-66-0	pentane			1 - < 5 %
	203-692-4	601-006-00-1	01-2119459286-30	
	Flam. Liq. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H336 H304 H411 EUH066			
78-93-3	butanone; ethyl methyl ketone			< 0.1 %
	201-159-0	606-002-00-3	01-2119457290-43	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066			

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		
64-17-5	200-578-6	ethanol, ethyl alcohol	1 - < 5 %
	inhalation: LC50 = 117 mg/l (vapours); oral: LD50 = 10470 mg/kg Eye Irrit. 2; H319: >= 50 - 100		
78-93-3	201-159-0	butanone; ethyl methyl ketone	< 0.1 %
	dermal: LD50 = 6480 mg/kg; oral: LD50 = 2193 mg/kg		

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 experiencing respiratory symptoms: Call a doctor.

After contact with skin

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

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. Do not subject to friction. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person or a person with cramps. When in doubt or if symptoms are observed, get medical advice.

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

May cause drowsiness or dizziness.

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

Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

Non-flammable. Vapours can form explosive mixtures with air. Pressurised container: May burst if heated.
In case of fire may be liberated: Hydrogen fluoride, Pyrolysis products, toxic.

5.3. Advice for firefighters

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

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.

6.3. Methods and material for containment and cleaning up

For containment

Stop leak if safe to do so.

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

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

Heating causes rise in pressure with risk of bursting. Vapours can form explosive mixtures with air. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

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

Do not pierce or burn, even after use.

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.

Hints on joint storage

Do not store together with: Pyrophoric or self-heating substances.

Further information on storage conditions

Keep away from heat. Protect from sunlight.

7.3. Specific end use(s)

Restricted to professional users.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
64-17-5	Ethanol	1000	-		STEL (15 min)	
78-93-3	Methyl ethyl ketone (MEK) (Butan-2-one)	200	600		TWA (8 h)	
		300	900		STEL (15 min)	
-	Mineral Oil pure, highly & severely refined (Inhalable)	-	5		TWA (8 h)	
109-66-0	n-Pentane	1000	-		TWA (8 h)	

Biological limit values

CAS No	Substance	Parameter	Value	Test material	Sampling time
78-93-3	Butan-2-one	Butan-2-one	70 µmol/L	Urine	Post shift

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
64-17-5	ethanol, ethyl alcohol			
Worker DNEL, long-term		inhalation	systemic	950 mg/m³
Worker DNEL, acute		inhalation	local	1900 mg/m³
Worker DNEL, long-term		dermal	systemic	343 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	114 mg/m³
Consumer DNEL, acute		inhalation	local	950 mg/m³
Consumer DNEL, long-term		dermal	systemic	206 mg/kg bw/day
Consumer DNEL, acute		oral	systemic	87 mg/kg bw/day
109-66-0	pentane			
Worker DNEL, long-term		inhalation	systemic	3000 mg/m³
Worker DNEL, long-term		dermal	systemic	432 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	643 mg/m³
Consumer DNEL, long-term		dermal	systemic	214 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	214 mg/kg bw/day
8042-47-5	White mineral oil (petroleum)			
Worker DNEL, long-term		dermal	systemic	217,05 mg/kg bw/day
78-93-3	butanone; ethyl methyl ketone			
Worker DNEL, long-term		inhalation	systemic	600 mg/m³
Worker DNEL, long-term		dermal	systemic	1161 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	106 mg/m³
Consumer DNEL, long-term		dermal	systemic	412 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	31 mg/kg bw/day

PNEC values

CAS No	Substance
Environmental compartment	Value
64-17-5	ethanol, ethyl alcohol
Freshwater	0,96 mg/l
Marine water	0,79 mg/l
Freshwater sediment	3,6 mg/kg
Marine sediment	2,9 mg/kg
Secondary poisoning	0,72 mg/kg
Micro-organisms in sewage treatment plants (STP)	580 mg/l
Soil	0,63 mg/kg
109-66-0	pentane
Freshwater	0,23 mg/l
Freshwater (intermittent releases)	0,88 mg/l
Marine water	0,23 mg/l
Freshwater sediment	1,2 mg/kg
Marine sediment	1,2 mg/kg
Soil	0,55 mg/kg
78-93-3	butanone; ethyl methyl ketone
Freshwater	55,8 mg/l
Marine water	55,8 mg/l
Micro-organisms in sewage treatment plants (STP)	709 mg/l
Freshwater sediment	284,74 mg/kg
Marine sediment	284,7 mg/kg
Soil	22,5 mg/kg
Secondary poisoning	1000 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.

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.

Thermal hazards

Heating causes rise in pressure with risk of bursting.

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 (Aerosol)
Colour:	grey, beige
Odour:	like: Alcohol
Odour threshold:	not determined

Changes in the physical state

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	(Propellant) -19 °C
Flash point:	not determined (*)

Flammability

Solid/liquid:	not applicable
Gas:	not applicable
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Auto-ignition temperature:	(Propellant) 288 °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:	not determined
Density:	not determined
Relative vapour density:	not determined
Particle characteristics:	3 - 5 µm

9.2. Other information

Other safety characteristics

Solid content:	1 - 5 %

Further Information

(*) Propellant: flame-resistant
Danger of explosion: Heating causes rise in pressure with risk of bursting.

SECTION 10: Stability and reactivity

10.1. Reactivity

Aerosol, Heating causes rise in pressure with risk of bursting.

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.

10.4. Conditions to avoid

Protect from direct sunlight. Keep away from heat.

10.5. Incompatible materials

Pyrophoric or self-heating substances.

10.6. Hazardous decomposition products

In case of fire may be liberated: Hydrogen fluoride, 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
64-17-5	ethanol, ethyl alcohol				
	oral	LD50 10470 mg/kg	Rat	Manufacturer	
	inhalation (4 h) vapour	LC50 117 mg/l	Rat	Manufacturer	
78-93-3	butanone; ethyl methyl ketone				
	oral	LD50 2193 mg/kg	Rat	OECD 423	
	dermal	LD50 6480 mg/kg	Rabbit	GESTIS	

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. (pentane)

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.

Information on likely routes of exposure

Eye contact, Skin contact, Inhalation.

Active agent: oral

11.2. Information on other hazards

Endocrine disrupting properties

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
64-17-5	ethanol, ethyl alcohol						
	Acute fish toxicity	LC50	14200 mg/l	96 h	Pimephales promelas (fathead minnow)	Manufacturer	
	Acute crustacea toxicity	EC50	9268 - 14221 mg/l	48 h	Daphnia magna	Manufacturer	
78-93-3	butanone; ethyl methyl ketone						
	Acute fish toxicity	LC50	2993 mg/l	96 h	Pimephales promelas (fathead minnow)	OECD 203	
	Acute algae toxicity	ErC50	2029 mg/l	96 h	Selenastrum capricornutum	OECD 201	
	Acute crustacea toxicity	EC50	308 mg/l	48 h	Daphnia magna (Big water flea)	OECD 202	
	Fish toxicity	NOEC	1170 mg/l	4 d	Pimephales promelas (fathead minnow)	OECD 203	
	Algae toxicity	NOEC	1240 mg/l	4 d	Selenastrum capricornutum	OECD 201	
	Crustacea toxicity	NOEC	68 mg/l	2 d	Daphnia magna (Big water flea)	OECD 202	

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
64-17-5	ethanol, ethyl alcohol			
	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	97 %	28	IUCLID
	Readily biodegradable (according to OECD criteria).			
78-93-3	butanone; ethyl methyl ketone			
		98 %	28	OECD 301D/ EEC 92/69/V, C.4-E
	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
64-17-5	ethanol, ethyl alcohol	-0,31
78-93-3	butanone; ethyl methyl ketone	0,3

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

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

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

Contaminated packaging

Do not pierce or burn, even after use. 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 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2
14.4. Packing group:	-
Hazard label:	2.2



Classification code:	5A
Special Provisions:	190 327 344 625
Limited quantity:	1 L
Excepted quantity:	E0
Transport category:	3
Tunnel restriction code:	E

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2
14.4. Packing group:	-
Hazard label:	2.2



Classification code:	5A
Special Provisions:	190 327 344 625
Limited quantity:	1 L
Excepted quantity:	E0

Marine transport (IMDG)

14.1. UN number or ID number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2.2
14.4. Packing group:	-
Hazard label:	2.2



Special Provisions:	63, 190, 277, 327, 344, 381, 959
Limited quantity:	1000 mL
Excepted quantity:	E0
EmS:	F-D, S-U

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS, NON-FLAMMABLE
14.3. Transport hazard class(es):	2.2
14.4. Packing group:	-
Hazard label:	2.2



Special Provisions:	A98 A145 A167 A802
Limited quantity Passenger:	30 kg G
Passenger LQ:	Y203
Excepted quantity:	E0
IATA-packing instructions - Passenger:	203
IATA-max. quantity - Passenger:	75 kg
IATA-packing instructions - Cargo:	203
IATA-max. quantity - Cargo:	150 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Pressurised container: May burst if heated. Vapours can form explosive mixtures with air.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

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 3, Entry 40, Entry 75

2010/75/EU (VOC):	> 90 %
Information according to 2012/18/EU (SEVESO III):	Not subject to 2012/18/EU (SEVESO III)

Additional information

Aerosol Directive (75/324/).

National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
Water hazard class (D):	1 - slightly hazardous to water

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).

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

Classification	Classification procedure
Aerosol 3; H229	On basis of test data
Eye Irrit. 2; H319	Bridging principle "Aerosols"
STOT SE 3; H336	Bridging principle "Aerosols"
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.

H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful 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.)