


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

- **1.1 Product identifier**
- **Trade name:** *DINITROL 8460 HS-Fade Out Blender Spray*
- **Article number:** *14176*
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** *Thinner, Diluent*
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
*DINOL GmbH
Pyrmonter Str. 76
D-32676 Lügde
Tel: +49 5281 9829 80
Fax: +49 5281 9829 860
E-mail: msds@dinol.com*
- **Further information obtainable from:** *Research & Development*
- **1.4 Emergency telephone number:**
Giftnotruf Berlin +49(0)30 30686 790 Beratung in Deutsch und Englisch.

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 **F+; Extremely flammable**
R12: Extremely flammable.
- **Information concerning particular hazards for human and environment:**
*The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
Warning! Pressurized container.*
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **2.2 Label elements**
- **Labelling according to EU guidelines:**
*The product has been marked in accordance with EU Directives / respective national laws.
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
The R and S phrases may be omitted if packaging contains no more than 0.125 litre.*
- **Code letter and hazard designation of product:**
F+ Extremely flammable
- **Risk phrases:**
12 Extremely flammable.
- **Safety phrases:**
*2 Keep out of the reach of children.
9 Keep container in a well-ventilated place.
23 Do not breathe vapour/spray.
29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
46 If swallowed, seek medical advice immediately and show this container or label.
51 Use only in well-ventilated areas.*
- **Special labelling of certain preparations:**
*Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
Do not spray on a naked flame or any incandescent material.*

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- Buildup of explosive mixtures possible without sufficient ventilation.
- **Classification in accordance with Directive 75/324/EEC: Extremely flammable**
- **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 characterization: Mixtures**
- **Description:** Mixture of substances listed below with additions.

· **Dangerous components:**

CAS: 115-10-6 EINECS: 204-065-8	Dimethyl ether F+ R12 Flam. Gas 1, H220; Press. Gas, H280	50-<100%
CAS: 108-94-1 EINECS: 203-631-1	Cyclohexanone Xn R20 R10 Flam. Liq. 3, H226; Acute Tox. 4, H332	10-<25%
CAS: 141-78-6 EINECS: 205-500-4	Ethyl acetate Xi R36; F R11 R66-67 Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	5-<10%
CAS: 1330-20-7 EINECS: 215-535-7	Xylene, mixed isomers, pure Xn R20/21; Xi R38 R10 Flam. Liq. 3, H226; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	5-<10%
CAS: 123-86-4 EINECS: 204-658-1 Reg.nr.: 01-2119485493-29	n-Butyl acetate R10-66-67 Flam. Liq. 3, H226; STOT SE 3, H336	5-<10%
CAS: 108-65-6 EINECS: 203-603-9	2-methoxy-1-methylethyl acetate R10 Flam. Liq. 3, H226; Eye Irrit. 2, H319	5-<10%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After skin contact:**
Remove contaminated clothing. Wash skin with soap and water.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **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, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:**
Water

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- Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide (CO)
Nitrogen oxides (NOx)
- **5.3 Advice for firefighters**
- **Protective equipment:** Mount respiratory protective device.
- **Additional information** Cool endangered receptacles with water spray.

* **SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or any water course.
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:**
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
Absorb liquid components with liquid-binding material.
- **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 interior ventilation, especially at floor level. (Fumes are heavier than air).
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Use only in well ventilated areas.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:**
Keep container tightly sealed.
Do not seal receptacle gas tight.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

* **SECTION 8: Exposure controls/personal protection**

- **Additional information about design of technical facilities:** No further data; see item 7.

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· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

115-10-6 Dimethyl ether

WEL Short-term value: 958 mg/m³, 500 ppm
Long-term value: 766 mg/m³, 400 ppm

108-94-1 Cyclohexanone

WEL Short-term value: 82 mg/m³, 20 ppm
Long-term value: 41 mg/m³, 10 ppm
Sk, BMGV

141-78-6 Ethyl acetate

WEL Short-term value: 400 ppm
Long-term value: 200 ppm

1330-20-7 Xylene, mixed isomers, pure

WEL Short-term value: 441 mg/m³, 100 ppm
Long-term value: 220 mg/m³, 50 ppm
Sk; BMGV

123-86-4 n-Butyl acetate

WEL Short-term value: 966 mg/m³, 200 ppm
Long-term value: 724 mg/m³, 150 ppm

108-65-6 2-methoxy-1-methylethyl acetate

WEL Short-term value: 548 mg/m³, 100 ppm
Long-term value: 274 mg/m³, 50 ppm
Sk

· DNELs

123-86-4 n-Butyl acetate

Inhalative	Acute - Local effects, worker	960 mg/m ³ (Worker)
	Acute - local effects, general population	859.7 mg/m ³ (General Population)
	Acute - systemic effects, general population	859.7 mg/m ³ (General Population)
	Acute - systemic effects, worker	960 mg/m ³ (Worker)
	Long-term - local effects, general population	102.34 mg/m ³ (General Population)
	Long-term - local effects, worker	480 mg/m ³ (Worker)
	Long-term - systemic effects, general population	102.34 mg/m ³ (General Population)
	Long-term - systemic effects, worker	480 mg/m ³ (Worker)

· PNECs

123-86-4 n-Butyl acetate

Aquatic compartment - freshwater	0.18 mg/L (not specified)
Aquatic compartment - marine water	0.018 mg/L (not specified)
Aquatic compartment - sediment in freshwater	0.981 mg/kg sed dw (not specified)
Aquatic compartment - sediment in marine water	0.0981 mg/kg sed dw (not specified)
Aquatic compartment - water, intermittent releases	0.36 mg/L (not specified)
Sewage treatment plant	35.6 mg/L (not specified)
Terrestrial compartment - soil	0.0903 mg/kg dw (not specified)

· Ingredients with biological limit values:

108-94-1 Cyclohexanone

BMGV 2 mmol/mol creatinine
Medium: urine
Sampling time: post shift
Parameter: cyclohexanol

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1330-20-7 Xylene, mixed isomers, pure

BMGV	650 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: methyl hippuric acid
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· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.

· **Respiratory protection:**

Filter AX

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Use suitable respiratory protective device in case of insufficient ventilation.

· **Protection of hands:** Not required.

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Nitrile rubber

Recommended thickness of the material: ≥ 0.12 mm

· **Penetration time of glove material**

> 480 min.

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Aerosol
Colour:	Transparent
Odour:	Characteristic
Odour threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	-24 °C

· **Flash point:** -42 °C (DIN 53213)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 235 °C

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· Decomposition temperature:	Not determined.
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	1.1 Vol %
Upper:	18.6 Vol %
· Vapour pressure At 20 °C:	5200 hPa
· Density At 20 °C:	0.752 g/cm ³ (DIN 51757)
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	98.2 %
Solids content:	1.8 % (DIN 53216)
· 9.2 Other information	No further relevant information available.
· VOC (EU):	98.20 %
· VOC (EU):	739.0 g/l
· VOCV:	98.20 %

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
Nitrogen oxides (NO_x)
Carbon monoxide

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

115-10-6 Dimethyl ether

Inhalative	LC50/4 h	164 mg/l (RAT)
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108-94-1 Cyclohexanone

Oral	LD50	1900 mg/kg (rat)
Dermal	LD50	948 mg/kg (rbt)

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Inhalative	LC50/4 h	8000 mg/l (rat)
141-78-6 Ethyl acetate		
Oral	LD50	4935 mg/kg (RABBIT)
Inhalative	LC50/4 h	1600 mg/l (RAT)
1330-20-7 Xylene, mixed isomers, pure		
Oral	LD50	8700 mg/kg (RAT)
Dermal	LD50	2000 mg/kg (RABBIT)
Inhalative	LC50/4 h	6350 mg/l (RAT)
	LC50/24 h	100-1000 mg/l (DAPHNIA MAGNA)
	LC50/96 h	11.9-25.1 mg/l (SALMO GAIRDNERI / ONCORHYNCHUS MYKISS)
123-86-4 n-Butyl acetate		
Oral	LD50	10760 mg/kg (RAT)
Dermal	LD50	>14000 mg/kg (RABBIT)
Inhalative	LC50/4 h	>20 mg/l (RAT)
	LC50/96 h	18 mg/l (pimephales promelas)
108-65-6 2-methoxy-1-methylethyl acetate		
Oral	LD50	8500 mg/kg (rat)
Inhalative	LC50/4 h	35.7 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

123-86-4 n-Butyl acetate

EC50/48 h 44 mg/l (DAPHNIA MAGNA)

EC50/72 h 647.7 mg/l (ALGAE)

- **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.

· Additional ecological information:

· General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

· 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

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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· European waste catalogue	
08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01 00	wastes from MFSU and removal of paint and varnish
08 01 11*	waste paint and varnish containing organic solvents or other dangerous substances
15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01 00	packaging (including separately collected municipal packaging waste)
15 01 10*	packaging containing residues of or contaminated by dangerous substances
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
· 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	
	
· Class	2.1
· Label	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
· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

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· Transport/Additional information:

- **ADR**
- **Limited quantities (LQ)** 1L
- **Transport category** 2
- **Tunnel restriction code** D

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to EU guidelines:**
The product has been marked in accordance with EU Directives / respective national laws.
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
The R and S phrases may be omitted if packaging contains no more than 0.125 litre.
- **Code letter and hazard designation of product:**
F+ Extremely flammable
- **Risk phrases:**
12 Extremely flammable.
- **Safety phrases:**
2 Keep out of the reach of children.
9 Keep container in a well-ventilated place.
23 Do not breathe vapour/spray.
29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
46 If swallowed, seek medical advice immediately and show this container or label.
51 Use only in well-ventilated areas.
- **Special labelling of certain preparations:**
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
Do not spray on a naked flame or any incandescent material.
Buildup of explosive mixtures possible without sufficient ventilation.
- **Classification in accordance with Directive 75/324/EEC: Extremely flammable**
- **National regulations:**
- **Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.**
- **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.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H336 May cause drowsiness or dizziness.
- **R10 Flammable.**

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- R11 Highly flammable.
- R12 Extremely flammable.
- R20 Harmful by inhalation.
- R20/21 Harmful by inhalation and in contact with skin.
- R36 Irritating to eyes.
- R38 Irritating to skin.
- R66 Repeated exposure may cause skin dryness or cracking.
- R67 Vapours may cause drowsiness and dizziness.

- **Department issuing MSDS:** Research & Development
- **Contact:** Kontakt: msds@dinol.com oder Tel.: 0049 (0)5281 982 980
- *** Data compared to the previous version altered.**

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