

SAFETY DATA SHEET

Green FDA markingspray

SDS according to Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex II-EU

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

Date issued 25.11.2014

1.1. Product identifier

Product name Green FDA markingspray
Article no. 241-143

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

Function Markingspray

1.3. Details of the supplier of the safety data sheet

Company name Center-Gros A/S
Postal address Nimtoftevej 41-43
Postcode 8550
City Ryomgård
Country Danmark
Tel +45 87 74 10 40
E-mail cg@center-gros.dk
Website http://www.center-gros.dk

1.4. Emergency telephone number

Emergency telephone Giftlinjen :+45 8112 1212

SECTION 2: Hazards identification

2.1. Classification of substance or mixture

Classification according to 67/548/EEC or 1999/45/EC F+; R12
Xi; R36
R67
Classification according to Regulation (EC) No 1272/2008 [CLP/GHS] Flam Aerosol 1;H222;
H229;
Eye Irrit. 2;H319;
STOT SE3;H336;

2.2. Label elements

Hazard Pictograms (CLP)



Composition on the label propan-2-ol:30 - 60 % vgt/vgt
Signal word Danger
Hazard statements H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
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 smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P403 Store in a well-ventilated place.
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

2.3. Other hazards

PBT / vPvB

The mixture does not meet the criteria for PBT or vPvB.

Other hazards

The product releases organic solvent vapours which may cause lethargy and dizziness. At high concentrations, the vapours may cause headache and intoxication.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents
Ethanol	CAS no.: 64-17-5 EC no.: 200-578-6 Index no.: 603-002-00-5 Synonyms: ethyl alcohol	F; R11 Flam. Liq. 2; H225;	30 - 60 % vgt/vgt
butane	CAS no.: 106-97-8 EC no.: 203-448-7 Index no.: 601-004-00-0	F+; R12 Flam gas 1; H220; Press. Gas; Note : C U	10 - 30 % vgt/vgt
propane	CAS no.: 74-98-6 EC no.: 200-827-9 Index no.: 601-003-00-5	F+; R12 Flam. gas 1; H220 Press. Gas Note : U	10 - 30 % vgt/vgt
and isobutane	CAS no.: 75-28-5 EC no.: 200-857-2 Index no.: 601-004-00-0	F+; R12 Flam gas 1; H220 Press. Gas; Note : C U	10 - 30 % vgt/vgt
propan-2-ol	CAS no.: 67-63-0 EC no.: 200-661-7 Index no.: 603-117-00-0 Synonyms: isopropyl alcohol; isopropanol	F; R11 Xi; R36 R67 Flam. Liq. 2; H225; Eye Irrit. 2; H319; STOT SE3; H336;	30 - 60 % vgt/vgt

Substance comments

6) See also section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General	If medical advice is needed, have product container or label at hand. Forbrænding: Flush with water until pain ceases. Remove clothing that is not stuck to the skin seek medical advice/transport to hospital. If possible, continue flushing until medical attention is obtained.
Inhalation	Seek fresh air. Keep victim under observation. Seek medical advice in case of persistent discomfort.
Skin contact	Remove contaminated clothing. Wash skin with soap and water. Seek medical advice in case of persistent discomfort.
Eye contact	Flush with water (preferably using eye wash equipment) until irritation subsides. Seek medical advice if symptoms persist.
Ingestion	Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Get medical advice/attention if you feel unwell.

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

Information for health personnel

Irritation effects: This product contains substances which cause irritation to skin and eyes, or when inhaled. Contact with locally irritative substances can cause the area of contact to be more prone to absorb damaging substances such as allergens.

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

Other Information

No special immediate treatment required.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Extinguish with powder, foam, carbon dioxide or water mist. Use water or water mist to cool non-ignited stock.

Improper extinguishing media

Do not use water stream, as it may spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards

Flammable aerosol. CAUTION! Aerosol containers may explode.

5.3. Advice for firefighters

Other Information

If there is a risk of exposure to vapour and flue gases, a self-contained breathing apparatus must be worn. Move containers from danger area if it can be done without risk. Avoid inhalation of vapour and flue gases seek fresh air.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures

Smoking and naked flames prohibited. Eliminate all ignition sources if safe to do so. Take precautionary measures against static discharges. Use spark-free tools and explosion proof equipment.

6.1.1. For non-emergency personnel

Personal precautions

Wear respiratory protective equipment with filter A.

6.1.2. For emergency responders

For emergency responders

Stop leak if safe to do so.

6.2. Environmental precautions

Environmental precautionary measures

Avoid unnecessary release to the environment.

6.3. Methods and material for containment and cleaning up

Cleaning method

Wipe up minor spills with a cloth.

6.4. Reference to other sections

Other instructions

See section 8 for type of protective equipment. See section 13 for instructions on disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling

Use the product under well-ventilated conditions, preferably outdoors. See section 8 for information about precautions for use and personal protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Storage

Pressurized container: Protect from sunlight and do not expose to temperatures exceeding 50°C. Keep out of reach of children. Store in a well-ventilated place. Store frost-free.

Conditions for safe storage

Storage Temperature

Value: 10-50 grader

7.3. Specific end use(s)

Specific use(s)

See application section 1

Specific end users

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure limit values

Substance	Identification	Value	TWA Year
Ethanol	CAS no.: 64-17-5 EC no.: 200-578-6 Index no.: 603-002-00-5 Synonyms: ethyl alcohol	8-hour TWA: 1000 ppm 8-hour TWA: 1920 mg/m3	
butane	CAS no.: 106-97-8 EC no.: 203-448-7 Index no.: 601-004-00-0	8-hour TWA: 600 ppm 8-hour TWA: 1450 mg/m3 15 min.: 750 ppm 15 min.: 1810 mg/m3	
propane	CAS no.: 74-98-6 EC no.: 200-827-9 Index no.: 601-003-00-5		
and isobutane	CAS no.: 75-28-5 EC no.: 200-857-2 Index no.: 601-004-00-0		
propan-2-ol	CAS no.: 67-63-0 EC no.: 200-661-7 Index no.: 603-117-00-0 Synonyms: isopropyl alcohol; isopropanol	8-hour TWA: 400 ppm 8-hour TWA: 999 mg/m3 15 min.: 500 ppm 15 min.: 1250 mg/m3	

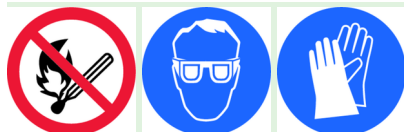
DNEL / PNEC from substances

Substance	Ethanol
DNEL	Group: Worker Exposure route: Inhalation Exposure frequency: Short term (acute) Type of effect: Local effect Value: 1900 mg/m3
DNEL	Group: Worker Exposure route: Dermal Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 343 mg/kg bw/day
DNEL	Group: Worker Exposure route: Inhalation Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 950 mg/m3
DNEL	Group: Consumer Exposure route: Inhalation Exposure frequency: Short term (acute) Type of effect: Local effect Value: 950 mg/m3
DNEL	Group: Consumer Exposure route: Oral Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 87 mg/kg bw/day

DNEL	Group: Consumer Exposure route: Dermal Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 206 mg/kg bw/day
DNEL	Group: Consumer Exposure route: Inhalation Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 114 mg/m ³
PNEC	Exposure route: Water Value: 0,96 mg/L Remarks: Fresh Water
PNEC	Exposure route: Water Value: 0,79 mg/L Remarks: Marine Water
PNEC	Exposure route: Water Value: 2,75 mg/L Remarks: Intermittent releases Water
PNEC	Exposure route: Soil Value: 0,63 mg/kg soil dw
Substance	propan-2-ol
DNEL	Group: Worker Exposure route: Inhalation Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 500 mg/m ³
DNEL	Group: Consumer Exposure route: Oral Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 26 mg/kg bw/day
DNEL	Group: Consumer Exposure route: Dermal Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 319 mg/kg bw/day
DNEL	Group: Consumer Exposure route: Inhalation Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 89 mg/m ³
DNEL	Group: Worker Exposure route: Dermal Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 888 mg/kg bw/day
PNEC	Exposure route: Soil Remarks: 28 mg/kg soil dw
PNEC	Exposure route: Freshwater Value: 140.9 mg/L
PNEC	Exposure route: Saltwater Value: 140.9 mg/L
PNEC	Exposure route: Water Value: 140.9 mg/L Remarks: Intermittent releases

8.2. Exposure controls

Safety signs



Respiratory protection

Respiratory protection

In case of insufficient ventilation, wear respiratory protective equipment with filter A.

Hand protection

Hand protection

Plastic or rubber gloves recommended.

Eye / face protection

Eye protection

Wear safety goggles if there is a risk of eye splash.

Skin protection

Skin protection (except hands)

Not required.

Thermal hazards

Thermal hazards

Aerosol cans can explode.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Aerosol

Colour

Green

Odour

Alcohol

9.2. Other information

Physical hazards

Miscibility

Not miscible with water.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity

Heating may cause a fire or explosion.

10.2. Chemical stability

Stability

The product is stable when used in accordance with the supplier's directions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions

No risk of hazardous reactions.

10.4. Conditions to avoid

Conditions to avoid

Avoid heating and contact with ignition sources.

10.5. Incompatible materials

Materials to avoid

None known.

10.6. Hazardous decomposition products

Hazardous decomposition products

Mangler oversættelse

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological data for substances

Substance

Ethanol

LD50 oral

Value: 10470 mg/kg bw

Animal test species: rat

LD50 dermal

Value: > 20000 mL/kg bw

	Animal test species: rabbit
LC50 inhalation	Value: 124,7 mg/L air Animal test species: rat Duration: 4 h
Substance	butane
LC50 inhalation	Value: 1237 mg/L air Animal test species: Mouse Duration: 2 h
Substance	propan-2-ol
LD50 oral	Value: 5,84 g/kg bw Animal test species: rat
LD50 dermal	Value: 16,4 mL/kg bw Animal test species: rabbit
LC50 inhalation	Value: > 10000 ppm Animal test species: rat Duration: 6 h

Other information regarding health hazards

General	The product releases organic solvent vapours. At high concentrations, the vapours may cause headache, dizziness, intoxication and possible unconsciousness.
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Potential acute effects

Inhalation	May cause drowsiness or dizziness.
Skin contact	May cause slight irritation.
Eye contact	Irritating to eyes. Causes a burning sensation and tearing.
Ingestion	Ingestion may cause discomfort.

SECTION 12: Ecological information

12.1. Toxicity

Toxicological data for substances

Substance	Ethanol
Acute aquatic, fish	Value: 14,2 g/L Method of testing: LC50 Duration: 96 h
Acute aquatic, algae	Value: ~ 1,96 g/L Method of testing: EC50 Duration: 96 h
Acute aquatic, Daphnia	Value: 5012 mg/L Method of testing: LC50 Duration: 48 h
Biodegradability	Value: 97 Test period: 28 days Method of testing: OECD Guideline 301 B
Bioaccumulation	Log Pow = -0,35
Substance	butane
Acute aquatic, fish	Value: 27,98 mg/L Method of testing: LC50 Duration: 96 h
Acute aquatic, algae	Value: 7,71 mg/L Method of testing: EC50 Duration: 96 h
Acute aquatic, Daphnia	Value: 14,22 mg/L Method of testing: LC50 Duration: 48 h
Biodegradability	Value: 100

	Test period: 385,5 h Method of testing: Biodegradation test, (predates, OECD test)
Bioaccumulation	Log Pow = 1.09
Substance	propan-2-ol
Acute aquatic, fish	Value: 10000 mg/L Method of testing: LC50 Duration: 96 h
Acute aquatic, Daphnia	Value: > 10000 mg/L Method of testing: LC50 Duration: 24 h
Biodegradability	Value: 53 Test period: 5 days Method of testing: EU Method C.5
Bioaccumulation	Log Pow = 0,05

12.2. Persistence and degradability

Persistence and degradability Readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential The product is not bioaccumulable.

12.4. Mobility in soil

Mobility Test data are not available.

12.5. Results of PBT and vPvB assessment

PBT assessment results The mixture does not meet the criteria for PBT or vPvB.

12.6. Other adverse effects

Other adverse effects / Remarks None.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal Do not dispose of aerosol sprays in refuse collection, even when empty. The sprays must be sent to the municipal chemical waste collection facility with the specifications set out below.

EWC waste code EWC: 160504 gases in pressure containers (including halons) containing dangerous substances

SECTION 14: Transport information

14.1. UN number

ADR	1950
RID	1950
IMDG	1950
ICAO/IATA	1950
Comments	The product is covered by the rules for transport of dangerous goods.

14.2. UN proper shipping name

ADR	AEROSOLS
RID	AEROSOLS
IMDG	AEROSOLS
ICAO/IATA	AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es)

ADR	2.1
RID	2.1
IMDG	2.1
ICAO/IATA	2.1

14.4. Packing group

14.5. Environmental hazards

ADR -

14.6. Special precautions for user

EmS F-D, S-U

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Declaration no. 2154821

15.2. Chemical safety assessment

Chemical safety assessment performed No

SECTION 16: Other information

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]	Flam Aerosol 1; H222; Eye Irrit. 2; H319; STOT SE3; H336; ; H229;
List of relevant R-phrases (under headings 2 and 3).	R36 Irritating to eyes. R11 Highly flammable. R67 Vapours may cause drowsiness and dizziness. R12 Extremely flammable.
List of relevant H-phrases (Section 2 and 3).	H222 Extremely flammable aerosol. H336 May cause drowsiness or dizziness. H220 Extremely flammable gas. H225 Highly flammable liquid and vapour. H229 Pressurised container: May burst if heated. H319 Causes serious eye irritation.
Version	3
Responsible for safety data sheet	Center-Gros A/S
Prepared by	