Printing date 07.11.2016

Revision: 18.06.2015

Trade Name: Color Flame RED 500 ml.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name: GREENSTAR COLOR FLAME RED BLANCO 500 ML

Article number: GS0012

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 Preparation

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Green Star Steenpad 21H

NL-4797SG Willemstad

The Netherlands

Tel: +31 (0) 168 473 194 Fax: +31 (0) 168 473 176 e-mail info@green-star.nl

Further information obtainable from: QHSE Department

1.4 Emergency telephone number: +31 653 302 312 (24 h/d, 7 d/wk)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS02

Signal word: Danger

Printing date 07.11.2016

Revision: 18.06.2015

Trade Name: Color Flame RED 500 ml.

(Contd. of page 1)

Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P260 Do not breathe spray.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P251 Pressurized container: Do not pierce or burn, even after use.

P211 Do not spray on an open flame or other ignition source.

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

P501 Dispose of contents/container in accordance with local regulations.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable. **vPvB:** Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Chemical characterization: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:		
CAS: 115-10-6	dimethyl ether	25-50%
EINECS: 204-065-8		
Index number: 603-019-00-8	Flam. Gas 1, H220; Flam. Liq. 1, H224	
Reg.nr.: 01-2119472128-37-xxxx	Press. Gas, H280	
CAS: 64-17-5	ethanol	25-50%
EINECS: 200-578-6		
Index number: 603-002-00-5	Flam. Liq. 2, H225	
Reg.nr.: 01-2119457610-43-xxxx		
CAS: 67-56-1	methanol	1-2.5%
EINECS: 200-659-6	8 - 1	
Index number: 603-001-00-X	Flam. Liq. 2, H225	
Reg.nr.: 01-2119433307-44-xxxx	Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331	
	▼ STOT SE 1, H370	

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

4. FIRST AID MEASURES

4.1 Description of first aid measures

After inhalation: Supply fresh air; consult doctor in case of complaints. **After skin contact:** Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

Printing date 07.11.2016

Revision: 18.06.2015

Trade Name: Color Flame RED 500 ml.

(Contd. of page 2)

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5. FIRE-FIGHTING 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 let

5.2 Special hazards arising from the substance or mixture No further relevant information available.

5.3 Advice for firefighters

Protective equipment: No special measures required.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Keep away from ignition sources.

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.

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.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

No special measures required.

Ensure good ventilation/exhaustion at the workplace.

Information about fire - and explosion protection:

Do not spray onto a naked flame or any incandescent material.

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: Not required.

Further information about storage conditions: Protect from heat and direct sunlight.

7.3 Specific end use(s) No further relevant information available.

Printing date 07.11.2016 Version number 7 Revision: 18.06.2015

Trade Name: Color Flame RED 500 ml.

(Contd. of page 3)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

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	
64-17-5 ethanol		
WEL ()	Long-term value: 1920 mg/m³, 1000 ppm	
67-56-1 methanol		
WEL ()	Short-term value: 333 mg/m³, 250 ppm	
	Long-term value: 266 mg/m³, 200 ppm	
	Sk	

Additional information: The lists valid during the making were used 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 required.

Protection of hands: Not required.

Material of gloves Not required.

Penetration time of glove material Not required.

Eye protection: Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form: Aerosol

Colour: According to product specification

Odour: Characteristic
Odour threshold: Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Not applicable, as aerosol.

Flash point: $< 0 \, ^{\circ}\text{C} \, (< 32 \, ^{\circ}\text{F})$

Not applicable, as aerosol.

Flammability (solid, gaseous): Not applicable. Ignition temperature: 240 °C (464 °F) 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: 3.3 Vol % **Upper:** 26.2 Vol %

Vapour pressure at 20 °C (68 °F): 4000 hPa (3000 mm Hg) **Density at 20 °C (68 °F):** 0.729 g/cm³ (6.084 lbs/gal)

Page 5/8

Safety data sheet according to 1907/2006/EC, Article 31 Version number 7

Printing date 07.11.2016

Revision: 18.06.2015

Trade Name: Color Flame RED 500 ml.

(Contd. of page 4)

Relative densityNot determined.Vapour densityNot determined.Evaporation rateNot 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: 75.1 %

 EU-VOC:
 547.1 g/l

 EU-VOC in %:
 75.05 %

 Solids content:
 24.9 %

9.2 Other information No further relevant information available.

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:** No dangerous decomposition products known.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

LD/LC50 values relevant for classification: 115-10-6 dimethyl ether					
64-17-5 ethanol					
Oral	LD50	7060 mg/kg (rat)			
Dermal	LD50	>2000 mg/kg (rabbit)			
Inhalative	LC50 / 4 h	20000 mg/m3 (rat)			
67-56-1 methanol					
Oral	LD50	5628 mg/kg (rat)			
Dermal	LD50	15800 mg/kg (rabbit)			

Primary irritant effect:

on the skin: No irritant effect. on the eye: No irritating effect.

Sensitization: No sensitizing effects known.

Printing date 07.11.2016

Revision: 18.06.2015

Trade Name: Color Flame RED 500 ml.

(Contd. of page 5)

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity:	
115-10-6 dimethyl ether	
EC50 / 48 h	>4000 mg/l (daphnia magna)
64-17-5 ethanol	
EC50 / 24 h	>100 mg/l (daphnia magna)
LC50 / 48 h	9000 mg/l (crustacean (water flea))

- 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 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.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable. vPvB: Not applicable.

12.6 Other adverse effects No further relevant information available.

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.

European waste catalogue

20 01 13* solvents

15 01 04 metallic packaging

Uncleaned packaging:

Recommendation: Non contaminated packagings may be recycled.

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)



Printing date 07.11.2016

Revision: 18.06.2015

Trade Name: Color Flame RED 500 ml.

(Contd. of page 6)

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.

Transport/Additional information:

ADR

Limited quantities (LQ) 1L

Transport category 2
Tunnel restriction code D

UN "Model Regulation": UN1950, AEROSOLS, 2.1

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.

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

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.

H224 Extremely flammable liquid and vapour.

H225 Highly flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H331 Toxic if inhaled.

H370 Causes damage to organs.

R11 Highly flammable.

R12 Extremely flammable.

R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Printing date 07.11.2016

Revision: 18.06.2015

Trade Name: Color Flame RED 500 ml.

(Contd. of page 7)

Department issuing MSDS: QHSE Department

Contact: Mr. W. Dangerman

Abbreviations and acronyms:

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 Organization

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 Harmonized 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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Gas 1: Flammable gases, Hazard Category 1

Flam. Aerosol 1: Flammable aerosols, Hazard Category 1

Press. Gas: Gases under pressure: Compressed gas

Flam. Liq. 1: Flammable liquids, Hazard Category 1

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Acute Tox. 3: Acute toxicity, Hazard Category 3

STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1

Data compared to the previous version altered.