Safety Data Sheet for S0211– Stihl Eco Marker Paint - Red

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY NAME

1.1 Product identifier
Trade name: STIHL Markerspray ECO - Fluorescent marking paint

Article number:
0000 881 1787, 0000 881 1789, 0000 881 1790, 0000 881 1791, 0000 881 1792, 0000 881 1793

1.2 Relevant identified uses of the substance or mixture and uses advised against
Sector of Use
SU1 Agriculture, forestry, fishery
SU21 Consumer uses: Private households / general public / consumers
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Application of the substance / the mixture Marker Spray (Aerosol)

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier:
ANDREAS STIHL AG & Co.KG
Badstr. 115
D-71336 Waiblingen
Tel: +49(0)7151-26-3237
Fax: +49(0)7151-26-8-3237
Email: info@stihl.com

Informing department:
Produktmanagement Forsttechnik
Tel: +49(0)7151-26-3237
Fax: +49(0)7151-26-83237

1.4 Emergency telephone number:
Emergency control center for poisoning cases Berlin +49 (0) 30 30 686 790 (German and English)
Information for transport Tel.: +49-621-60-43333 Fax: 49-621-60-92664

2. Hazards identification

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


GHS02 flame

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

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.
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.

2.3 Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Chemical characterisation: Mixtures
Description:
Mix of the substances listed below including additives not requiring identification.

Dangerous components:			
CAS: 64-17-5 EINECS: 200-578-6	Ethanol	Flam. Liq. 2, H225	25-<50%
CAS: 106-97-8 EINECS: 203-448-7	Butane	Flam. Gas 1, H220; Press. Gas C, H280	5-<50%
CAS: 74-98-6 EINECS: 200-827-9	Propane	Flam. Gas 1, H220; Press. Gas C, H280	10-<25%

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

4. FIRST AID MEASURES

4.1 Description of first aid measures
General information Take affected persons into the open air.

After inhalation Supply fresh air; consult doctor in case of symptoms.

After skin contact
Instantly wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.

After eye contact
Rinse opened eye for several minutes under running water. Then consult doctor.
In case of persistent symptoms consult doctor.

After swallowing
Rinse out mouth and then drink plenty of water. In case of persistent symptoms consult 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.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing agents
Extinguishing powder, foam or water jet. Fight larger fires with water jet or alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents
Water with a full water jet.

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

5.3 Advice for firefighters
Protective equipment:
Wear self-contained breathing apparatus. Do not inhale explosion gases or combustion gases.

Additional information
Cool endangered containers with water spray jet.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Keep away from ignition sources
Ensure adequate ventilation
Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:
Do not allow product to reach sewage system or water bodies.
Inform respective authorities in case product reaches water or sewage system.

6.3 Methods and material for containment and cleaning up:
Dispose of the material collected according to regulations.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents

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 information on disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Keep away from heat and direct sunlight.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Information about protection against explosions and fires:
Highly volatile, flammable constituents are released during processing.
Keep ignition sources away - Do not smoke.

7.2 Conditions for safe storage, including any incompatibilities
Storage
Requirements to be met by storerooms and containers:
Store only undamaged original packaging drums.
Store containers in a well aired place at a temperature of less than 50 °C.
Observe official regulations on storing packagings with pressurised containers.

Information about storage in one common storage facility:
Take also into account special standards when storing the containers together with inflammable liquids.
Store away from flammable substances.

Further information about storage conditions:
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
Protect from heat and direct sunlight.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with limit values that require monitoring at the workplace:	
64-17-5 ethanol	
WEL	Long-term value: 1920 mg/m³, 1000 ppm
106-97-8 butane	
WEL	Short-term value: 1810 mg/m³, 750 ppm Long-term value: 1450 mg/m³, 600 ppm Carc (if more than 0.1% of buta-1.3-diene)

Additional information:
The lists that were valid during the compilation were used as basis.

8.2 Exposure controls
Personal protective equipment
General protective and hygienic measures
Do not eat, drink or smoke while working.
Wash hands during breaks and at the end of the work.
Keep away from foodstuffs, beverages and food.
Avoid contact with the eyes and skin.

Breathing equipment:
In case of insufficient removal by suction or longer inhalation a breathing protection is required.

Protection of hands:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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.

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

For the permanent contact gloves made of the following materials are suitable:
PVC or PE gloves

Eye protection:
Safety glasses

Body protection:
Protective work clothing.

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

Change in condition

Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not applicable, as aerosol.
Flash point:	Not applicable, as aerosol
Ignition temperature:	365 °C
Self-inflammability:	Product is not selfigniting.
Danger of explosion:	Product is not explosive. However, formation of explosive air/steam mixtures is possible.

Critical values for explosion:

Lower:	1.5 Vol %
Upper:	15.0 Vol %
Vapour pressure at 20 °C:	4200 hPa
Density at 20 °C	0.795 g/cm³
Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix

Solvent content:

Organic solvents:	80.4 %
VOC EU	565.8 g/l
VOC EU	79.69 %

9.2 Other information
No further relevant information available.

10. STABILITY AND REACTIVITY

10.1 Reactivity
No further relevant information available.

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

Primary irritant effect:
Skin corrosion/irritation
More frequent and continuous contact with the skin may result in irritation of the skin.

Serious eye damage/irritation
Based on available data, the classification criteria are not met.

Respiratory or skin sensitization
Based on available data, the classification criteria are not met.

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

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.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
Aquatic toxicity:
No further relevant information available.

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 bodies 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 RECOMMENDATIONS

Waste treatment methods
Recommendation
The waste code numbers mentioned are recommendations based on the probable use of the product. The product is suitable for processing by an approved recycling facility or can be disposed of at any government approved waste disposal facility.

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

Uncleaned packagings:
Recommendation:
Dispose of packaging according to regulations on the disposal of packagings.

14. TRANSPORT INFORMATION

14.1 UN-Number
ADR,RID,ADN, IMDG, IATA UN1950

14.2 UN proper shipping name
ADR/RID/ADN 1950 AEROSOLS
IMDG AEROSOLS
IATA AEROSOLS, flammable

14.3 Transport hazard class(es)
ADR/RID/ADN

Class 2 5F Gases.
Label 2.1

IMDG, IATA

Class 2.1
Label 2.1

14.4 Packing group
ADR,RID,ADN, IMDG, IATA Void

14.5 Environmental hazards:
Marine pollutant: No

14.6 Special precautions for user Warning: Gases.
Kemler Number: -
EMS Number: F-D,S-U

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.

Transport/Additional information:
ADR/RID/ADN
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
Directive 2012/18/EU
Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t
Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t

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

16. OTHER INFORMATION

These data are based on our present knowledge. However, they 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.
H280 Contains gas under pressure; may explode if heated.

Abbreviations and acronyms:
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)
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
Flam. Liq. 2: Flammable liquids – Category 2

Disclaimer:
This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability for such information for his own particular use.