SAFETY DATA SHEET

Date of issue/Date of revision

: 13 March 2015



PPG Protective & Marine Coatings

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

: STEELGUARD 851 WHITE
: 00371796
: Not available.
s of the substance or mixture and uses advised against
: Professional applications, Used by spraying.
: Coating.
of the safety data sheet
: PMC.Safety@PPG.com
number
D

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361d (Unborn child) STOT SE 3, H336 STOT RE 2, H373

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Ingredients of unknown ecotoxicity : Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 23.5%

Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Code : 00371796	Date of issue/Date of revision	: 13 March 2015
STEELGUARD 851 WHITE		

SECTION 2: Hazards identification

Classification	:	F; R11 Repr. Cat. 3; R63 Xn; R48/20 Xi; R38 R67
Physical/chemical hazards	:	Highly flammable.
Human health hazards	:	Possible risk of harm to the unborn child. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Irritating to skin. Vapours may cause drowsiness and dizziness.

See Section 16 for the full text of the R phrases or H statements declared above. See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements Hazard pictograms Signal word : Danger **Hazard statements** : Highly flammable liquid and vapour. Causes skin irritation. Suspected of damaging the unborn child. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure. **Precautionary statements Prevention** : Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe vapour. : IF exposed or concerned: Get medical attention. IF INHALED: Remove person to Response fresh air and keep comfortable for breathing. Storage : Store in a well-ventilated place. Keep cool. Disposal : Not applicable. **Hazardous ingredients** : toluene Supplemental label : Not applicable. elements **Annex XVII - Restrictions** : Not applicable. on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles **Special packaging requirements** Containers to be fitted : Not applicable. with child-resistant fastenings Tactile warning of danger : Not applicable. 2.3 Other hazards Other hazards which do : Prolonged or repeated contact may dry skin and cause irritation. not result in classification

Code : 00371796 STEELGUARD 851 WHITE Date of issue/Date of revision

: 13 March 2015

SECTION 3: Composition/information on ingredients

3.2 Mixtures	: Mixture				
			Classification		
Product/ingredient name	Identifiers	% by weight	67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	Туре
toluene	REACH #: 01-2119471310-51	≥18 - <25	F; R11	Flam. Liq. 2, H225	[1] [2]
	EC: 203-625-9 CAS: 108-88-3		Repr. Cat. 3; R63 Xn; R48/20, R65	Skin Irrit. 2, H315 Repr. 2, H361d (Unborn child)	
	Index: 601-021-00-3		Xi; R38 R67	STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304	
butanone	REACH #: 01-2119457290-43	≥2.1 - <3	F; R11	Flam. Liq. 2, H225	[1] [2]
	EC: 201-159-0 CAS: 78-93-3 Index: 606-002-00-3		Xi; R36 R66, R67	Eye Irrit. 2, H319 STOT SE 3, H336	
			See Section 16 for the full text of the R- phrases declared above.	See Section 16 for the full text of the H statements declared above.	

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

SUB codes represent substances without registered CAS Numbers.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
Inhalation	 Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact	 Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
Ingestion	: If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

English (GB)	United Kingdom (UK)	3/15
Eligiisii (OD)	onited Kingdom (ort)	5/10

Code : 00371796 STEELGUARD 851 WHITE	Date of issue/Date of revision : 13 March 2015
SECTION 4: First ai	d measures
4.2 Most important symptor	ns and effects, both acute and delayed
Potential acute health effe	<u>cts</u>
Eye contact	: No known significant effects or critical hazards.
Inhalation	: Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact	: Causes skin irritation. Defatting to the skin.
Ingestion	: Can cause central nervous system (CNS) depression.
Over-exposure signs/sym	<u>ptoms</u>
Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness reduced foetal weight increase in foetal deaths skeletal malformations
Skin contact	: Adverse symptoms may include the following: irritation redness dryness cracking reduced foetal weight increase in foetal deaths skeletal malformations
Ingestion	: Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
4.3 Indication of any immed	iate medical attention and special treatment needed
Notes to physician	: In case of inhalation of decomposition products in a fire, symptoms may be delayed
	The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments

SECTION 5: Firefighting measures

: No specific treatment.

5.1 Extinguishing media Suitable extinguishing media	: Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Highly flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

United Kingdom (UK)	
Code : 00371796 STEELGUARD 851 WHITE	Date of issue/Date of revision : 13 March 2015
SECTION 5: Firefight	ing measures
Hazardous combustion products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides carbonyl halides metal oxide/oxides
5.3 Advice for firefighters	
Special precautions for fire- fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, prot	teo	ctive equipment and emergency procedures
For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
6.2 Environmental precautions	:	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
6.3 Methods and material for o	:01	ntainment and cleaning up
Small spill	:	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	:	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.
6.4 Reference to other sections	:	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

Code	: 00371796	Date of issue/Date of revision	: 13 March 2015
STEELGU	JARD 851 WHITE		

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures	: Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid exposure during pregnancy. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
7.2 Conditions for safe storage, including any incompatibilities	: Storage temperature: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
7.3 Specific end use(s) Recommendations Industrial sector specific solutions	Not available.Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Code : 00371796	Date of issue/Date of revision	: 13 March 2015
STEELGUARD 851 WHITE		

SECTION 8: Exposure controls/personal protection

toluene EH40/2005 WELs (Unitied Kingdom (UK), 12/2011). Absorbed through skin. STEL: 348 mg/m ² 15 minutes. STEL: 398 mg/m ² 15 minutes. butanone EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 300 pmr 15 minutes. TWA: 50 pm 8 hours. TWA: 50 pm 8 hours. STEL: 300 pmr 15 minutes. STEL: 300 pmr 15 minutes. STEL: 300 pmr 15 minutes. STEL: 300 pmr 15 minutes. STEL: 300 pmr 36 hours. TWA: 500 pg/m ² 8 hours. TWA: 200 pm 8 hours. TWA: 200 pm 8 hours. TWA: 200 pm 8 hours. TWA: 200 pm 8 hours. STEL: 300 pmr 15 minutes. STEL: 300 pmr 15 minutes. STEL: 300 pmr 15 minutes. STEL: 300 pmr 15 minutes. STEL: 300 pmr 36 hours. TWA: 200 pm 8 hours. TWA: 200 pm 8 hours. TWA: 200 pm 8 hours. Stellation or other control measures and/or the necessity to use repriratory protective equipment. Reference should be made to monitoring standards. Stellation or other application and use of procedures for the assessment of exposure by inhalation to chemical agents or comparison with limit values and measurement strategy). European Standard EN 4042 (Workplace atmospheres - Guidence for the assessment of exposure lo chemical and biological agents). Reference to national guidance documents for methods for the determination of hazardous substances will also be required. DNELs - Not available. PNE	Product/ingredient r	name	Exposure limit values	
butanone EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 800 mg/m ² 15 minutes. STEL: 300 ppm 15 minutes. TWA. 200 ppm 8 hours. TWA. 200 ppm 8 hours. Recommended monitoring procedures If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 489 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 482 (Workplace atmospheres - Gueder requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances will also be required. DNELs DNELs - Not available. IUse only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to aiborne controls 8.2 Exposure controls Appropriate engineering I Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to aiborne controls Hyglene measures I Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing used to incource	toluene		through skin. STEL: 384 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 191 mg/m ³ 8 hours.	
proceduresatmosphere or biological "monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 889 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 14042 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances will also be required.DNELsNot available.PNECs PNECsVarial agentsPNECs controlsUse only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.Individual protection measuresWash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.Eyelface protection: Chemical aplash goggles.Skin protection: Chemical aplash goggles.Skin protection: Chemical aplash goggles.Skin protection: Chem	butanone		EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 899 mg/m ³ 15 minutes. STEL: 300 ppm 15 minutes. TWA: 600 mg/m ³ 8 hours.	
DNELs DNELs - Not available. PNECs PNECs - Not available. 8.2 Exposure controls Appropriate engineering controls individual protection measures Hygiene measures Yeyface protection Skin protection Skin protection Hand protection Skin protection Chemical splash goggles. Skin protection Skin protection Chemical splash goggles. Skin protection Generation Chemical resistant, impervious gloves complying with an approved standard should be worth at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of		atmosphere or k of the ventilation protective equip the following: E the assessment limit values and atmospheres - C exposure to che (Workplace atm for the measure documents for n	biological monitoring may be required to determine the effectivened or other control measures and/or the necessity to use respiratory ment. Reference should be made to monitoring standards, such uropean Standard EN 689 (Workplace atmospheres - Guidance f of exposure by inhalation to chemical agents for comparison with measurement strategy) European Standard EN 14042 (Workplac Guide for the application and use of procedures for the assessmen mical and biological agents) European Standard EN 482 ospheres - General requirements for the performance of procedu ment of chemical agents) Reference to national guidance	/ as for ce nt of ures
PNECs - Not available. 8.2 Exposure controls Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. Individual protection measures Hygiene measures Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Eye/face protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of				
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Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.Eye/face protection: Chemical splash goggles.Skin protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of		ventilation or oth contaminants b also need to ke	her engineering controls to keep worker exposure to airborne elow any recommended or statutory limits. The engineering cont ep gas, vapour or dust concentrations below any lower explosive	rols
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	Hand protection :	be worn at all tin this is necessar check during us should be noted different for diffe	mes when handling chemical products if a risk assessment indica y. Considering the parameters specified by the glove manufactur se that the gloves are still retaining their protective properties. It d that the time to breakthrough for any glove material may be erent glove manufacturers. In the case of mixtures, consisting of	tes er,
English (GB) United Kingdom (UK) 7/15	English (GB)		United Kingdom (UK)	7/15

Code	: 00371796	Date of issue/Date of revision	: 13 March 2015
STEELGUAR	RD 851 WHITE		

SECTION 8: Exposure controls/personal protection

Gloves	:	nitrile rubber, butyl rubber, PVC, Viton®
Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

English (GB)	United Kingdom (IIK)	8/15
Viscosity	: Kinematic (40°C): >0.21 cm ² /s	
Decomposition temperature	: Not available.	
Auto-ignition temperature	: Not available.	
water	. Not available.	
Partition coefficient: n-octanol/	C C C C C C C C C C C C C C C C C C C	
Solubility(ies)	 I.so Insoluble in the following materials: cold water. 	
Vapour density Relative density	: Highest known value: 3.1 (Air = 1) (toluene). Weighted average: 3.03 (Air = 1.35	1)
Vapour pressure	 Highest known value: 10.5 kPa (78.8 mm Hg) (at 20°C) (butanone). Weighted average: 3.87 kPa (29.03 mm Hg) (at 20°C) Highest known value: 2.4 (Air = 4) (takense) M(sighted suggests) 2.02 (Air = 4) 	
explosive limits	Upper: 7.38%	al
Upper/lower flammability or	: Lower: 1.15%	
Flammability (solid, gas)	Not available.	
Evaporation rate Material supports combustion.	: Not available. : Yes.	
Flash point	: Closed cup: 3°C	
range		
Initial boiling point and boiling	: >37.78°C	
Melting point/freezing point	: Not available.	
рН	Not available.	
Odour threshold	: Not available.	
Odour	: Aromatic. [Strong]	
Colour	: White.	
Physical state	: Liquid.	
<u>Appearance</u>		

English (GB)

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 453/2010 -	
United Kingdom (UK)	

Code : 00371796	Date of issue/Date of revision	: 13 March 2015
STEELGUARD 851 WHITE		

SECTION 9: Physical and chemical properties

Explosive properties Oxidising properties

: Not available. : Not available.

9.2 Other information

No additional information.

y and reactivity
: No specific test data related to reactivity available for this product or its ingredients.
: The product is stable.
: Under normal conditions of storage and use, hazardous reactions will not occur.
: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
toluene	LC50 Inhalation Vapour	Rat	49 g/m³	4 hours
	LC50 Inhalation Vapour	Rat	8000 ppm	4 hours
	LD50 Dermal	Rabbit	8.39 g/kg	-
	LD50 Oral	Rat	636 mg/kg	-
titanium dioxide	LD50 Oral	Rat	>10 g/kg	-
pentaerythritol	LD50 Oral	Rat	18500 mg/kg	-
butanone	LC50 Inhalation Vapour	Rat	11243 ppm	4 hours
	LD50 Dermal	Rabbit	6480 mg/kg	-
	LD50 Oral	Rat	2737 mg/kg	-
Kaolin	LD50 Oral	Rat	>5000 mg/kg	-

Conclusion/Summary

Acute toxicity estimates

	Route	ATE value
Not available.		
Irritation/Corrosion		
Conclusion/Summary	: Not available.	
Sensitisation		
Conclusion/Summary	: Not available.	
Mutagenicity		

Code : 00371796	Date of issue/Date of revision	: 13 March 2015
STEELGUARD 851 WHITE		

SECTION 11: Toxicological information

Conclusion/Summary	: Not available.
Carcinogenicity	
Conclusion/Summary	: Not available.
Reproductive toxicity	
Conclusion/Summary	: Not available.
Teratogenicity	
Conclusion/Summary	: Not available.
On a stift a farmed among farm	

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
	0,		Narcotic effects Narcotic effects

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
toluene	Category 2	Not determined	Not determined

Aspiration hazard

Produc	t/ingredient name	Result
toluene		ASPIRATION HAZARD - Category 1
Information on the likely routes of exposure	: Not available.	
Potential acute health effe	ects	
Inhalation	: Can cause central nervous system dizziness.	em (CNS) depression. May cause drowsiness or
Ingestion	: Can cause central nervous system	em (CNS) depression.
Skin contact	: Causes skin irritation. Defatting	to the skin.
Eye contact	: No known significant effects or o	critical hazards.
Symptoms related to the p	physical, chemical and toxicologica	characteristics
Inhalation	: Adverse symptoms may include nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness reduced foetal weight increase in foetal deaths skeletal malformations	the following:
Ingestion	: Adverse symptoms may include reduced foetal weight increase in foetal deaths skeletal malformations	the following:
Skin contact	: Adverse symptoms may include irritation redness dryness cracking reduced foetal weight increase in foetal deaths	the following:
English (GB)	United King	dom (UK) 10/1

Code : 00371796 STEELGUARD 851 WHITE		Date of issue/Date of revision : 13 March 2015
SECTION 11: Toxicol	lo	gical information
		skeletal malformations
Eye contact	:	Adverse symptoms may include the following: pain or irritation watering redness
Delayed and immediate effe	cts	and also chronic effects from short and long term exposure
<u>Short term exposure</u>		
Potential immediate effects	1	Not available.
Potential delayed effects	:	Not available.
Long term exposure		
Potential immediate effects	;	Not available.
Potential delayed effects	:	Not available.
Potential chronic health effe	ct	
Not available.		
Conclusion/Summary	:	Not available.
General	:	May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Teratogenicity	:	Suspected of damaging the unborn child.
Developmental effects	:	No known significant effects or critical hazards.
Fertility effects	:	No known significant effects or critical hazards.
Other information	1	Not available.

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
titanium dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
Conclusion/Summary	: Not available.		

12.2 Persistence and degradability

Code : 00371796	Date of issue/Date of revision	: 13 March 2015
STEELGUARD 851 WHITE		

SECTION 12: Ecological information

Conclusion/Summary	: Not available.		
Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
toluene	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
toluene	2.73	8.32	low
pentaerythritol	-1.69	1.26	low
butanone	0.29	-	low

12.4	Mob	ility	in	soil	
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Soil/water partition coefficient (K _{oc})	:	Not available.
Mobility	;	Not available.

12.5 Results of PBT a	nd vPvB assessment
PBT	: Not applicable.
vPvB	: Not applicable.

12.6 Other adverse effects

: No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

3.1 Waste treatment meth	lods
Product	
Methods of disposal	: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
Hazardous waste	: Yes.
European waste catalog	ue (EWC)
Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other dangerous substances
Packaging	·
Methods of disposal	 The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Type of packaging	European waste catalogue (EWC)
Container	15 01 06 mixed packaging

Code	: 00371796	Date of issue/Date of revision	: 13 March 2015	
STEELG	GUARD 851 WHITE			

SECTION 13: Disposal considerations

Special precautions
 This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

14. Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT	PAINT
14.3 Transport hazard class(es)	3	3	3	3
14.4 Packing group	II	II	II	II
14.5 Environmental hazards	No.	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.	Not applicable.

Additional information

ADR/RID	: None identified.
Tunnel code	: (D/E)
ADN	: None identified.
IMDG	: None identified.
IATA	: The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation Annex XIV None of the components are listed.

Substances of very high concern

None of the components are listed.

Code	: 00371796	Date of issue/Date of revision	: 13 March 2015
STEELGUAR	D 851 WHITE		

SECTION 15: Regulatory information

Annex XVII - Restrictions : Not applicable. on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Other EU regulations

Product/ingredient name	Carcinogenic effects	•	Developmental effects	Fertility effects
toluene	-	-	Repr. 2, H361d (Unborn child)	-

15.2 Chemical Safety

: No Chemical Safety Assessment has been carried out.

Assessment

SECTION 16: Other information

Indicates information that has	changed	from previously is	sued version.	
Abbreviations and acronyms	ATE = Acute Toxicity Estimate			
	CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DNEL = Derived No Effect Level			
		ecific Hazard statement ect Concentration		
		REACH Registrat		
H225 Highly flammable liquid and H304 May be fatal if swallowed ar H315 Causes skin irritation.		wallowed and enters airways. ation.		
	H319	Causes serious	eye irritation.	
	H336	May cause drow	vsiness or dizziness.	
	H361d (Unborn	Suspected of da	amaging the unborn child.	
	child)			
	H373	May cause dam	age to organs through prolonged or repeated exposure.	
	Asp. To	с. 1, H304	ASPIRATION HAZARD - Category 1	
		2, H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2	
		q. 2, H225	FLAMMABLE LIQUIDS - Category 2	
	Repr. 2, child)	H361d (Unborn	TOXIC TO REPRODUCTION (Unborn child) - Category 2	
	,	2, H315	SKIN CORROSION/IRRITATION - Category 2	
		E 2, H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	
	STOT S	E 3, H336	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	
Full text of abbreviated H statements	H225 H304 H315		le liquid and vapour. wallowed and enters airways.	
	H319			
	H336	Causes serious	/siness or dizziness.	
	H361d		amaging the unborn child.	
	(Unborn child)	Suspected of da		
	H373	May cause dam	age to organs through prolonged or repeated exposure.	

United Kingdom (UK)			
Code : 00371796 STEELGUARD 851 WHITE	Date of issue/Date of revision : 13 March 2015		
SECTION 16: Other	information		
Full text of classifications [CLP/GHS]	 Asp. Tox. 1, H304 Eye Irrit. 2, H319 Flam. Liq. 2, H225 Repr. 2, H361d (Unborn child) Skin Irrit. 2, H315 STOT RE 2, H373 STOT SE 3, H336 ASPIRATION HAZARD - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 FLAMMABLE LIQUIDS - Category 2 TOXIC TO REPRODUCTION (Unborn child) - Category 2 SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 STOT SE 3, H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 		
Full text of abbreviated R phrases	 R11- Highly flammable. R63- Possible risk of harm to the unborn child. R48/20- Harmful: danger of serious damage to health by prolonged exposure through inhalation. R65- Harmful: may cause lung damage if swallowed. R36- Irritating to eyes. R38- Irritating to skin. R66- Repeated exposure may cause skin dryness or cracking. R67- Vapours may cause drowsiness and dizziness. 		
Full text of classifications [DSD/DPD]	 F - Highly flammable Repr. Cat. 3 - Toxic to reproduction category 3 Xn - Harmful Xi - Irritant 		
<u>History</u> Date of issue/ Date of revision	: 13 March 2015		
Date of previous issue Prepared by Version	 No previous validation EHS 1 		

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