Version: 1.0 Date: 05th June 2019



ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

This material is produced as an "article" as defined in Regulation (EC) No 1907/2006 (REACH Regulation) and is therefore exempt from CLP 1272/2008 and SDS regulation 2015/830. An SDS has been provided for supply chain communication purposes and handling / storage recommendations only.

1.	. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING		
1.1	Product identifier		
	Product Name	SPECTRE	
	Product Code	3004	
1.2	Relevant identified uses of the substance or mixture and uses advised against		
	Identified Use(s)	Used as a reference for Magnetic Resonance Spectroscopy	
	Uses Advised Against	None known	
1.3	Details of the supplier of the safety data sheet		
	Company Identification	Gold Standard Phantoms Limited	
		The Network Building	
		97 Tottenham Court Road	
		London	
		W1T 4TP	
		United Kingdom	
	Telephone	+44 (0) 207 684 7749	
	E-Mail (competent person)	info@goldstandardphantoms.com	
1.4	Emergency telephone number		
	Emergency Phone No.	+44 (0) 781 654 3283	
	Languages spoken	English	
2.	SECTION 2: HAZARDS IDENTIFICATION		
2.1	Classification of the substance or mixture		
	Regulation (EC) No. 1272/2008 (CLP)	This material is produced as an "article" as defined in Regulation (EC) No 1907/2006 (REACH Regulation) and is therefore exempt from CLP 1272/2008 and SDS regulation 2015/830. Since this material has no intended release of a substance and will not result in exposure to a hazardous chemical under normal conditions of use, no hazard classification or Safety Data Sheet is required. An SDS has been provided for supply chain communication purposes and handling / storage recommendations only.	
2.2	Label elements	Not applicable.	
	Hazard Pictogram(s)	Not applicable.	
	Signal Word(s)	Not applicable.	
	Hazard Statement(s)	Not applicable.	
	Precautionary Statement(s)	Not applicable.	
	Supplemental information	Not applicable	

2.3 Other hazards

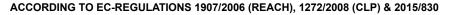
None known

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

As the product is an article (as defined in Regulation (EC) No 1907/2006), no components need to be listed within section 3 of the SDS as the requirements of SDS regulation 2015/830 do not apply. This product does not contain any known substances substances of very high concern" (SVHC's). An SDS has been provided for supply chain communication purposes and handling / storage recommendations only.

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4. SECTION 4: FIRST AID MEASURES

Description of first aid measures	
Self-protection of the first aider	No special precautions are required for this product.
Inhalation	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Dusts: Remove person to fresh air and keep comfortable for breathing. If exposed or concerned: Get medical attention/advice.
Skin Contact	If skin irritation occurs, get medical advice/attention. Dusts: Mechanical irritation of the skin and eyes. Wash skin with water. If irritation (redness, rash, blistering) develops, get medical attention.
Eye Contact	Remove contact lenses, if present and easy to do. Continue rinsing. Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. If irritation develops and persists, get medical attention.
Ingestion	Give plenty of water to drink. Get medical advice/attention if you feel unwell.
Most important symptoms and effects, both acute and delayed	None anticipated. Machining may create dust.
Indication of any immediate medical attention and special treatment needed	No information available. Treat symptomatically.
	Self-protection of the first aider Inhalation Skin Contact Eye Contact Ingestion Most important symptoms and effects, both acute and delayed Indication of any immediate medical attention and

5. SECTION 5: FIREFIGHTING MEASURES

- 5.1 Extinguishing media Suitable Extinguishing media
- Unsuitable extinguishing media
 Special hazards arising from the substance or mixture
- 5.3 Advice for fire-fighters

As appropriate for surrounding fire.

Small scale: Extinguish preferably with dry chemical, foam, waterspray or sand. Large scale: Use water spray, foam, dry powder or CO2 to extinguish.

As appropriate for surrounding fire. Do not use water jet.

On overheating or burning: release of toxic and corrosive gases/vapours. Combustion products: metal oxides

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Toxic fumes may be produced in a fire. Avoid contact with skin and eyes. Do not allow run-off from fire fighting to enter drains or water courses. Move undamaged containers from immediate hazard area if it can be done safely. Keep containers cool by spraying with water if exposed to fire.

6. SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures General measures applicable to all activities Eliminate all clothing. Do
- 6.1.1 For non-emergency personnel Personal precautions, protective equipment and emergency procedures Emergency procedures

6.1.2 Self-protection of the first aider Personal precautions, protective equipment and emergency procedures Emergency procedures

6.2 Environmental precautions

Eliminate all ignition sources if safe to do so. Avoid contact with skin, eyes or clothing. Do not heat the product. Do not allow to enter drains, sewers or watercourses.

Wear suitable protective clothing. In case of fire: Use self-contained breathing apparatus. Wear suitable gloves and eye/face protection. No special measures are required.

Wear suitable protective clothing, gloves and eye/face protection. Ensure adequate ventilation.

No special measures are required.

Do not allow run-off from fire fighting to enter drains or water courses. Use appropriate containment. Ensure all waste water is collected and treated via a waste water treatment plant. Avoid release to the environment.

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6.3

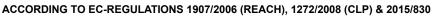


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6.4	Reference to other sections	to avoid environmental contamination. Wet clean or vacuum up solids. Dispose of contents in accordance with local, state or national legislation. See Section: 8, 13
7.	SECTION 7: HANDLING AND STORAGE	
7.1	Precautions for safe handling Hygiene Measures	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Remove contaminated clothing and wash clothing before reuse. Opened containers should be carefully resealed and stored in an upright position. Keep away from heat and sparks. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take care for general good
7.2	Conditions for safe storage, including any incompatibilities Storage temperature Incompatible materials	hygiene and housekeeping. Keep container tightly closed and in a well-ventilated place. Keep away from heat and sparks. Ambient temperatures. None known.
7.3	Specific end use(s)	Reference standard for Magnetic Resonance Spectroscopy
8.	SECTION 8: EXPOSURE CONTROLS/PERSO	ONAL PROTECTION
8.1 8.1.1	Control parameters Occupational Exposure Limits	Users are advised to consider national Occupational Exposure Limits or other equivalent values.
8.1.2	Biological limit value	Not established.
8.1.3	PNECs and DNELs	Not established.
8.2 8.2.1	Exposure controls Appropriate engineering controls	Ensure adequate ventilation. Store in a cool/low-temperature, well-ventilated (dry) place away from heat and ignition sources.
8.2.2	Individual protection measures, such as personal protective equipment (PPE)	Keep good industrial hygiene. Wear appropriate personal protective equipment, avoid direct contact. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke at the work place. Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.
	Eye/ face protection	Not normally required.
	Skin protection	Not normally required.
	Respiratory protection	Not normally required.

Methods and material for containment and cleaning up Avoid generation of dust. Stop leak if safe to do so. Use appropriate container

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES



Thermal hazards

9.

Not applicable

8.2.3 **Environmental Exposure Controls**

Avoid release to the environment.

9.1	Information on basic physical and chemical properties	
	Appearance	Clear liquid, pale yellow colour
	Odour	Pungent
	Odour threshold	Not established
	рН	7.4
	Melting point/freezing point	Not established
	Initial boiling point and boiling range	Not established
	Flash point	Not established
	Evaporation rate	Not established
	Flammability (solid, gas)	Not established
	Upper/lower flammability or explosive limits	Not established
	Vapour pressure	Not established
	Vapour density	Not established
	Relative density	Not established
	Solubility(ies)	Not established
	Partition coefficient: n-octanol/water	Not established
	Auto-ignition temperature	Not established
	Decomposition Temperature	Not established
	Viscosity	Not established
	Explosive properties	Not established
	Oxidising properties	Not established
9.2	Other information	None known

10. SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

10.2 **Chemical stability**

- 10.3 Possibility of hazardous reactions
- 10.4 Conditions to avoid
- 10.5 Incompatible materials
- 10.6 Hazardous decomposition product(s)

Stable under normal conditions. Stable under normal conditions. Hazardous polymerisation will not occur. Should be kept away from naked flames and other sources of ignition. Keep away from water. Avoid contact with acids and alkalis. None known

11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects (Substances in preparations / mixtures) This material is produced as an "article" as defined in Regulation (EC) No 1907/2006 (REACH Regulation) and is therefore exempt from CLP 1272/2008 and SDS regulation 2015/830. This product does not contain any known substances substances of very high concern" (SVHC's). An SDS has been provided for supply chain communication purposes and handling / storage recommendations only. Acute toxicity Ingestion Based upon the available data, the classification criteria are not met. Inhalation Based upon the available data, the classification criteria are not met. Skin Contact Based upon the available data, the classification criteria are not met. Skin corrosion/irritation Based upon the available data, the classification criteria are not met. Serious eye damage/irritation Based upon the available data, the classification criteria are not met. Respiratory or skin sensitization Based upon the available data, the classification criteria are not met. Germ cell mutagenicity Based upon the available data, the classification criteria are not met. Carcinogenicity Based upon the available data, the classification criteria are not met. **Reproductive toxicity** Based upon the available data, the classification criteria are not met. STOT - single exposure Based upon the available data, the classification criteria are not met. STOT - repeated exposure Based upon the available data, the classification criteria are not met. Aspiration hazard Based upon the available data, the classification criteria are not met. 11.2 Other information None

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12. SECTION 12: ECOLOGICAL INFORMATION

- 12.1 Toxicity
- 12.2 Persistence and degradability
- 12.3 Bioaccumulative potential
- 12.4 Mobility in soil
- 12.5 Results of PBT and vPvB assessment
- 12.6 Other adverse effects

Based upon the available data, the classification criteria are not met. No information available. No information available. None of the substances in this product fulfil the criteria for being regarded as a PBT or vPvB substance. No information available

13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Do not allow to enter drains, sewers or watercourses. Dispose of this material and its container as hazardous waste. Disposal should be in accordance with local, state or national legislation.

14. SECTION 14: TRANSPORT INFORMATION

This product is regarded as the article and this product is physically and chemically stable under normal conditions. Thus, this product is not regarded as dangerous goods under UN transport regulations.

		ADR/RID	IMDG/ADN
14.1	UN number	Not applicable.	Not applicable.
14.2	Proper Shipping Name	Not applicable.	Not applicable.
14.3	Transport hazard class(es)	Not applicable.	Not applicable.
14.4	Packing group	Not applicable.	Not applicable.
	Hazard label(s) (UN)	Not applicable.	Not applicable.
		Not applicable.	Not applicable.
14.5	Environmental hazards	Not applicable.	
14.6	Special precautions for user	Not applicable.	
14.7	Transport in bulk according to Annex II of MARPOL	Not applicable.	
	73/78 and the IBC Code		
14.8	Additional Information	Not applicable.	
	Hazard Identification Number (Kemler Code)	Not applicable.	
	Classification code: UN	Not applicable.	
	Orange plates	Not applicable.	
	Special Provisions	Not applicable.	
	ADR Transport Category	Not applicable.	
	Tunnel Restriction Code	Not applicable.	
	Limited Quantity (ADR)	Not applicable.	
	Excepted quantities (ADR)	Not applicable.	
	EAC code	Not applicable.	

15. SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture 15.1.1 EU regulations Authorisations and/or Restrictions On Use Not restricted Substance(s) of Very High Concern (SVHCs) None of the substances is included on the Candidate List of Substances of Very High Concern for authorisation (Annex XIV) under REACH Regulation (EC) No. 1907/2006. 15.1.2 National regulations None known. 15.2 **Chemical Safety Assessment** A chemical safety assessment is not required under REACH.

16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: Not applicable - V1.0

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References: Safety Data Sheets for ingoing ingredients. Regulation (EC) No. 1272/2008 (CLP). REACH Regulation (EC) No. 1907/2006.

Hazard classification: This material is produced as an "article" as defined in Regulation (EC) No 1907/2006 (REACH Regulation) and is therefore exempt from CLP 1272/2008 and SDS regulation 2015/830.

EU Classification: This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830.

LEGEND

LTEL	Long Term Exposure Limit
STEL	Short Term Exposure Limit
DNEL	Derived No Effect Level
PNEC	Predicted No Effect Concentration
PBT	PBT: Persistent, Bioaccumulative and Toxic
vPvB	vPvT: very Persistent and very Toxic

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

Disclaimers

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