	according to 1907/2006/EC, Article 31	
Printing date 24.08.2010		Revision: 24.08.2010
1 Identification of substance Product details		
Trade name	Ultramark 1621	
Stock number:	L16698	
Manufacturer/Supplier:	Alfa Aesar GmbH & Co.KG	
manufacturen/eupphon	Benzstrasse 3	E-mail: gcat@matthey.com
In farmula a dan antara at	D-76185 Karlsruhe / Germany	www.alfa-chemcat.com
Informing department: Emergency information:	Product safety department. Giftnotruf Universität Mainz / Poison Information Center Mainz	
	www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240	
2 Hazards identification		
Hazard designation:		
	Xi Irritant	
Information portaining to particular dangars		
Information pertaining to particular dangers for man and environment	R 36/37/38 Irritating to eyes, respiratory system and skin.	
GHS label elements	Varning	
	\checkmark	
	H315 - Causes skin irritation. H319 - Causes serious eye irritation.	
	H335 - May cause respiratory irritation	
Prevention: Response:	P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P302+P352 IF ON SKIN: Wash with plenty of soap and water.	
	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes	. Remove contact lenses, if
	P321 present and easy to do. Continue rinsing. P321 Specific treatment (see on this label).	
Storage:	P405 Store locked up.	ntornational regulations
Disposal:	P501 Dispose of contents/container in accordance with local/regional/national/in	nternational regulations.
3 Composition/information on ingredient	S	
Chemical characterization:		
Designation: (CAS#)	Hexakis(1H,1H,omegaH-perfluoroalkoxy)phosphazene (CAS# ?)	
4 First aid measures		
After inhalation	Supply fresh air. If required, provide artificial respiration. Keep patient warm. Co	onsult doctor if symptoms
	Seek immediate medical advice.	
After skin contact	Instantly wash with water and soap and rinse thoroughly. Seek immediate medical advice.	
After eye contact	Rinse opened eye for several minutes under running water. Then consult docto Seek immediate medical advice.	r.
After swallowing	Seek immediate medical advice.	
5 Fire fighting measures		
Suitable extinguishing agents	CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcoh	ol-resistant foam.
Special hazards caused by the material, its products of combustion or flue gases:	Can be released in case of fire:	
products of compustion of fide gases.	Carbon monoxide and carbon dioxide	
	Phosphorus oxides Nitrogen oxides (NOx)	
	Hydrogen fluoride (HF)	
Protective equipment:	Wear self-contained breathing apparatus. Wear full protective suit.	
6 Accidental release measures		
Person-related safety precautions:	Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation	
Measures for environmental protection:	Do not allow material to be released to the environment without proper governme	nental permits.
Measures for cleaning/collecting:	Absorb with liquid-binding material (sand, diatomite, acid binders, universal bind Ensure adequate ventilation.	ders, sawdust).
Additional information:	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 starses		
7 Handling and storage		
Handling Information for safe handling:	Keep containers tightly sealed.	
	Store in cool, dry place in tightly closed containers. Ensure good ventilation/exhaustion at the workplace.	
Information about protection against	-	
explosions and fires:	Keep ignition sources away - Do not smoke.	
Storage Requirements to be met by storerooms and		
containers:	No special requirements.	
Information about storage in one common storage facility:	Store away from oxidizing agents.	
Further information about storage		
conditions:	Keep container tightly sealed. Store in cool, dry conditions in well sealed containers.	
0.5		
8 Exposure controls and personal protec	นอก	
Additional information about design of technical systems:	Properly operating chemical fume hood designed for hazardous chemicals and	having an average face velocity
toomnour oyotomo.	of at least 100 feet per minute.	
Components with critical values that require	Netropyired	
monitoring at the workplace: Additional information:	Not required. No data	
Personal protective equipment		
General protective and hygienic measures	The usual precautionary measures should be adhered to in handling the chemic	cals.
	Keep away from foodstuffs, beverages and food.	(Contd. on page 2)
		GB -

Printing date 24.08.2010	Revision: 24.08.2010
Trade name <i>Ultramark 1621</i>	
Breathing equipment: Protection of hands: Material of gloves Eye protection: Body protection:	(Contd. of page 1) Wash hands during breaks and at the end of the work. Avoid contact with the eyes and skin. Use breathing protection with high concentrations. Check protective gloves prior to each use for their proper condition. 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. Safety glasses Face protection Protective work clothing.
9 Physical and chemical properties: General Information	
Form: Colour: Smell:	Liquid Pale yellow Not determined
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	Not determined Not determined Not determined
Flash point: Ignition temperature:	Not determined Not determined
Decomposition temperature:	Not determined
Danger of explosion:	Product is not explosive.
Critical values for explosion: Lower: Upper:	Not determined Not determined
Steam pressure: Density	Not determined Not determined
10 Stability and reactivity Thermal decomposition / conditions to be avoided: Materials to be avoided: Dangerous reactions: Dangerous products of decomposition:	No decomposition if used and stored according to specifications. Oxidizing agents No dangerous reactions known Carbon monoxide and carbon dioxide Phosphorus oxides (e.g. P2O5) Nitrogen oxides (NOx) Hydrogen fluoride
11 Toxicological information Acute toxicity: Primary irritant effect: on the skin: on the eye: Sensitization: Additional toxicological information:	Irritant for skin and mucous membranes. Irritant effect. No sensitizing effect known. To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
12 Ecological information: Additional ecological information: General notes:	Water hazard class 1 (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. Do not allow material to be released to the environment without proper governmental permits.
13 Disposal considerations	
Product: Recommendation	Consult state, local or national regulations for proper disposal. Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations.
Uncleaned packagings: Recommendation:	Disposal must be made according to official regulations.
14 Transport information Land transport ADR/RID and GGVS/GGVE (ADR/RID-GGVS/E Class:	cross-border/domestic) None
Maritime transport IMDG/GGVSea: IMDG/GGVSea Class: Marine pollutant:	None No
Air transport ICAO-TI and IATA-DGR: ICAO/IATA Class:	None
Transport/Additional information:	Not dangerous according to the above specifications.
15 Regulatory information Designation according to EC guidelines: Code letter and hazard designation of product:	Xi Irritant
Risk phrases: Safety phrases:	36/37/38 Irritating to eyes, respiratory system and skin. 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. (Contd. on page 3) GB

Trade name Ultramark 1621 (Contd. of page 37 Wear suitable gloves. (Contd. of page National regulations Information about limitation of use: For use only by technically qualified individuals. Employment restrictions concerning young persons must be observed. (Contd. of page Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water. (Contd. of page 16 Other information: Employment restrictions concerning young persons must be observed. (Contd. of page This information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product or in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. Contact: Abbreviations and acronyms: Abbreviations and acronyms: Apr: acron doursher sure (transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of the product or progenes and protect international Maritime Code for Dangerous Goods by Raii) (Contact: Abbreviations and acronyms: Content international Maritime Code for Dangerous Goods by Raii) (Contact international Maritime Code for Dangerous Goods by Raii) More international Aff Transport Association International Maritime Code for Dangerous Goods by Raii) (Contact international Air Transport Association "(IATA)) Contact: Contact: Contact	•		
37 Wear suitable gloves. National regulations Information about limitation of use: For use only by technically qualified individuals. Employment restrictions concerning young persons must be observed. Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water. 16 Other information: Employees should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the produnt is conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. Department issuing data specification sheet: Health, Safety and Environmental Department. Contact: Zachariah Holt	Frade name <i>Ultramark 1621</i>		
National regulations Information about limitation of use: For use only by technically qualified individuals. Employment restrictions concerning young persons must be observed. Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water. 16 Other information: Employees should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product or process, is the responsibility of the user. Department issuing data specification sheet: Health, Safety and Environmental Department. Zachariah Holt			age
Information about limitation of use: For use only by technically qualified individuals. Employment restrictions concerning young persons must be observed. Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water. 16 Other information: Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product on conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. Department issuing data specification sheet: Health, Safety and Environmental Department. Zachariah Holt	National regulations		
16 Other information: Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. Department issuing data specification sheet: Health, Safety and Environmental Department. Contact:	•	For use only by technically qualified individuals. Employment restrictions concerning young persons must be observed.	
Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. Department issuing data specification sheet: Health, Safety and Environmental Department. Contact:	Water hazard class:	Water hazard class 1 (Self-assessment): slightly hazardous for water.	
	Department issuing data specification she Contact:	eet: Health, Safety and Environmental Department. Zachariah Holt	