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SECTION 1: Identification of the substa 1.1 Product identifier Trade name Stock number: CAS Number: 1.2 Relevant identified uses of the substance Identified use:	nce/mixture and of the company/undertaking Geranylacetone A19184 3796-70-1 or mixture and uses advised against. SII24. Scientific research and development	
1.3 Details of the supplier of the safety data		
Manufacturer/Supplier:	Alfa Aesar GmbH & Co.KG A Johnson Matthey Company Zeppelinstr. 7b 76185 Karlsruhe / Germany Tel: +49 (0) 721 84007 280 Fax: +49 (0) 721 84007 300 Email: tech@alfa.com	
Informing department: 1.4 Emergency telephone number:	www.alfa.com Product safety Tel + +049 (0) 7275 988687-0 Carechem 24: +44 (o) 1235 239 670 (Multi-language emergency number) Poison Information Center Mainz www.giftinfo.uni-mainz.de Telephone: +49(0)6131/19240	
SECTION 2: Hazards identification 2.1 Classification of the substance or mixtur Classification according to Regulation (EC) I	e No 1272/2008	
GHS07		
Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2 H319 Causes serious eye irritatior STOT SE 3 H335 May cause respiratory irritat		
Classification according to Directive 67/548/	EEC or Directive 1999/45/EC	
R36/37/38: Irritating to eyes, respiratory systection concerning particular hazards	em and skin.	
for human and environment: Other hazards that do not result in classification	Not applicable No information known.	
2.2 Label elements		
Labelling according to Regulation (EC) No 1272/2008 Hazard pictograms	The substance is classified and labelled according to the CLP regulation. GHS07	
Signal word Hazard statements	Warning H315 Causes skin irritation.	
Precautionary statements	H319 Causes serious eye irritation.	
	P261       Avoid breathing dust/fume/gas/mist/vapours/spray.         P305+P351+P338       IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if         present and easy to do. Continue rinsing.         P302+P352       IF ON SKIN: Wash with plenty of soap and water.         P321       Specific treatment (see on this label).         P405       Store locked up.         P501       Dispose of contents/container in accordance with local/regional/national/international	
2.3 Other hazards	regulations.	
Results of PBT and vPvB assessment PBT: vPvB:	Not applicable. Not applicable.	
SECTION 3: Composition/information o 3.1 Substances	n ingredients	
CAS# Designation:	3796-70-1 Geranylacetone	
SECTION 4: First aid measures 4.1 Description of first aid measures		
After inhalation	Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.	
After skin contact	Seek immediate medical advice. Instantly wash with water and soap and rinse thoroughly. Seek immediate medical advice.	
After eye contact After swallowing A 9 Meet investigate sumptions and effects	Rinse opened eye for several minutes under running water. Then consult doctor. Seek medical treatment.	
4.2 Most important symptoms and effects, both acute and delayed 4.3 Indication of any immediate medical	No further relevant information available.	
attention and special treatment needed	No further relevant information available.	
SECTION 5: Firefighting measures 5.1 Extinguishing media		
Suitable extinguishing agents 5.2 Special hazards arising from the	CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.	
substance or mixture 5.3 Advice for firefighters	If this product is involved in a fire, the following can be released: Carbon monoxide and carbon dioxide	
Protective equipment:	Wear self-contained breathing apparatus. Wear full protective suit.	
SECTION 6: Accidental release measures		
6.1 Personal precautions, protective equipment and emergency procedures	Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation	
6.2 Environmental precautions:	Do not allow material to be released to the environment without proper governmental permits. Do not allow product to reach sewage system or water bodies.	
6.3 Methods and material for containment and cleaning up:	Do not allow to enter the ground/soil. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation. (Contd. on page 2)	
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Prevention of secondary hazards: 6.4 Reference to other sections	No special measures required. See Section 7 for information on safe handling See section 8 for information on personal protection equipment. See Section 13 for information on disposal.	
SECTION 7: Handling and storage		
7.1 Precautions 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	No information known.	
explosions and fires: 7.2 Conditions for safe storage, including ar		
Storage	iy moonpatibilities	
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.	
7.3 Specific end use(s)	Store in cool, dry conditions in well sealed containers. No further relevant information available.	
	al protection	
SECTION 8: Exposure controls/personal protection Additional information about design of		
technical systems:	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.	
8.1 Control parameters Components with critical values that require monitoring at the workplace: Additional information:	e Not required. No data	
8.2 Exposure controls Personal protective equipment General protective and hygienic measures	The usual precautionary measures should be adhered to in handling the chemicals. Keep away from foodstuffs, beverages and food. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work.	
Breathing equipment: Protection of hands:	Avoid contact with the eyes and skin. Maintain an ergonomically appropriate working environment. 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.	
Material of gloves Penetration time of glove material Eye protection:	Impervious gloves Not determined Safety glasses Face protection Protective work clothing.	
Body protection:	Flotective work clothing.	
SECTION 9: Physical and chemical properties		
9.1 Information on basic physical and chem General Information	ical properties	
Appearance: Form:	Liquid	
Colour: Smell:	Colourless Not determined	
Odour threshold:	Not determined.	
pH-value: Change in condition	Not determined.	
Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	Not determined 250 °C Not determined	
Flash point: Inflammability (solid, gaseous)	110 °C Not determined.	
Inflammability (solid, gaseous) Ignition temperature: Decomposition temperature:	Not determined	
Self-inflammability:	Not determined Not determined.	
Danger of explosion: Critical values for explosion:	Product is not explosive.	
Lower:	Not determined	
Upper: Steam pressure: Density at 20 °C	Not determined	
Density at 20 °C Relative density	0,87 g/cm <sup>3</sup> Not determined.	
Vapour density Evaporation rate	Not determined. Not determined.	
Solubility in / Miscibility with Water:		
Partition coefficient (n-octanol/water): Viscosity:	Not determined Not determined.	
dynamic: kinematic:	Not determined. Not determined.	
9.2 Other information	No further relevant information available.	
SECTION 10: Stability and reactivity		
10.1 Reactivity 10.2 Chemical stability	No information known. Stable under recommended storage conditions.	
Thermal decomposition / conditions to be avoided:	No decomposition if used and stored according to specifications.	
10.3 Possibility of hazardous reactions 10.5 Incompatible materials:	No dangerous reactions known Oxidizing agents	

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10.6 Hazardous decomposition products:	Carbon monoxide and carbon dioxide (Contd. of page 2)
SECTION 11: Toxicological information 11.1 Information on toxicological effects Acute toxicity: LD/LC50 values that are relevant for classification: Skin irritation or corrosion: Eye irritation or corrosion: Sensitization: Germ cell mutagenicity: Carcinogenicity: Beproductive toxicity:	No effects known. No data Causes skin irritation. Causes serious eye irritation. No sensitizing effect known. No effects known. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH. No effects known.
Reproductive toxicity: Specific target organ system toxicity - repeated exposure: Specific target organ system toxicity - single exposure: Aspiration hazard: Additional toxicological information:	No effects known.
SECTION 12: Ecological information	)
12.1 Toxicity Aquatic toxicity: 12.2 Persistence and degradability 12.3 Bioaccumulative potential 12.4 Mobility in soil Additional ecological information: General notes:	No further relevant information available. No further relevant information available. No further relevant information available. No further relevant information available. Do not allow material to be released to the environment without proper governmental permits. 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.
12.5 Results of PBT and vPvB assessment PBT: vPvB: 12.6 Other adverse effects	Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Avoid transfer into the environment. Not applicable. Not applicable. No further relevant information available.
SECTION 13: Disposal considerations 13.1 Waste treatment methods Recommendation	Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal.
Uncleaned packagings: Recommendation:	Disposal must be made according to official regulations.
SECTION 14: Transport information	
UN-Number ADR, IMDG, IATA	None
14.2 UN proper shipping name ADR, IMDG, IATA	None
14.3 Transport hazard class(es) ADR, IMDG, IATA Class	None
Packing group ADR, IMDG, IATA	None
14.5 Environmental hazards: 14.6 Special precautions for user	Not applicable. Not applicable.
14.7 Transport in bulk according to Annex II o Code	
Transport/Additional information:	Not dangerous according to the above specifications.
SECTION 15: Regulatory information 15.1 Safety, health and environmental regulat Australian Inventory of Chemical Substances	ations/legislation specific for the substance or mixture Substance is listed.
Standard for the Uniform Scheduling of Drugs and Poisons	Substance is not listed.
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: Other regulations, limitations and prohibitive ELINCS (European List of Notified Chemical Substances)	Water hazard class 1 (Self-assessment): slightly hazardous for water. e regulations Substance is not listed.
Substances of very high concern (SVHC) according to REACH, Article 57 REACH - Pre-registered substances 15.2 Chemical safety assessment:	Substance is not listed. Substance is listed. Substance is listed. A Chemical Safety Assessment has not been carried out.
this information to ensure proper use and protec not in conformance with this Material Safety Data	a supplement to other information gathered by them, and should make independent judgement of suitability of ct the health and safety of employees. This information is furnished without warranty, and any use of the product ta Sheet, or in combination with any other product or process, is the responsibility of the user.
Abbreviations and acronyms:	: Health, Safety and Environmental Department. RID: Reglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

Transport of Dangerous Goods by Rail) IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) ICAO: International Civil Aviation Organization ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

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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 CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

DE/E