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1 Identification of the substance/mixture	and of the company/undertaking
Product identifier	70 Dibuduana A mathulaa mayin
Trade name Stock number:	7,8-Dihydroxy-4-methylcomarin L14069
CAS Number:	2107-77-9
EINECS Number: Relevant identified uses of the substance or	218-290-4 mixture and uses advised against
Sector of Use	SU24 Scientific research and development
Details of the supplier of the safety data she Manufacturer/Supplier:	Alfa Aesar GmbH & Co.KG
	Benzstrasse 3 E-mail: gcat@matthey.com D-76185 Karlsruhe / Germany www.alfa-chemcat.com
Informing department:	Product safety department.
Emergency telephone number:	Giftnotruf Universität Mainz / Poison Information Center Mainz www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240
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2 Hazards identification Classification of the substance or mixture	
Classification according to Regulation (EC) I	No 1272/2008
GHS07	
Skin Irrit. 2 H315 Causes skin irritation.	
Eye Irrit. 2 H319 Causes serious eye irritation	
STOT SE 3 H335 May cause respiratory irritati	on.
Classification according to Directive 67/548/I	EEC or Directive 1999/45/EC
R36/37/38: Irritating to eyes, respiratory system Information concerning particular hazards	em and skin.
for human and environment:	Not applicable
Label elements Labelling according to Regulation (EC) No	
1272/2008	The substance is classified and labelled according to the CLP regulation.
Hazard pictograms	
	GHS07
Signal word	Warning
Hazard statements	H315 Causes skin irritation. H319 Causes serious eye irritation.
	H335 May cause respiratory irritation.
Precautionary statements	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
	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
Other hazards	regulations.
Results of PBT and vPvB assessment PBT:	Not applicable. Not applicable.
vPvB:	Not applicable.
3 Composition/information on ingredient	S
Chemical characterization: Substances (CAS#) Designation:	2107-77-9 7,8-Dihydroxy-4-methylcomarin
Identification number(s):	
EINECS Number:	218-290-4
4 First aid measures	
Description of first aid measures After inhalation	Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms
	Seek immediate medical advice.
After skin contact	Instantly wash with water and soap and rinse thoroughly.
After eye contact	Seek immediate medical advice. Rinse opened eye for several minutes under running water. Then consult doctor.
After swallowing Information for doctor	Seek immediate medical advice.
Most important symptoms and effects, both acute and delayed	No further relevant information available.
Indication of any immediate medical	
attention and special treatment needed	No further relevant information available.
5 Firefighting measures	
Extinguishing media Suitable extinguishing agents	CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
Special hazards arising from the substance or mixture	
	Can be released in case of fire: Carbon monoxide and carbon dioxide
Advice for firefighters Protective equipment:	Wear self-contained breathing apparatus. Wear full protective suit.
6 Accidental release measures	
Personal precautions, protective equipment and emergency procedures	Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation
Environmental precautions: Methods and material for containment and	Do not allow material to be released to the environment without proper governmental permits.
cleaning up:	Ensure adequate ventilation.
Reference to other sections	See Section 7 for information on safe handling (Contd. on page 2)
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	See section 8 for information on personal protection equipment. See Section 13 for information on disposal.	(Conta: of page
7 Handling and storage		
Handling Precautions for safe handling	Keep containers tightly sealed. Ensure good ventilation/exhaustion at the workplace.	
Information about protection against explosions and fires:	Keep ignition sources away - Do not smoke.	
Conditions for safe storage, including any in Storage	compatibilities	
Requirements to be met by storerooms and containers: Information about storage in one common	Refrigerate	
storage facility:	Store in the dark. Protect from heat. Store away from oxidizing agents.	
Further information about storage conditions:	Keep container tightly sealed. Protect from the effects of light.	
Specific end use(s)	Refrigerate No further relevant information available.	
8 Exposure controls/personal protection Additional information about design of technical systems:	Properly operating chemical fume hood designed for hazardous chemicals and having an of at least 100 feet per minute.	n average face velo
Control parameters Components with critical values that require monitoring at the workplace: Additional information:	Not required. No data	
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. Avoid contact with the eyes and skin. Use breathing protection with high concentrations.	
Breathing equipment: Protection of hands: Material of gloves	The selection of the suitable gloves does not only depend on the material, but also on ful and varies from manufacturer to manufacturer.	rther marks of quali
Penetration time of glove material Eye protection:	Not determined Safety glasses Face protection	
Body protection:	Protective work clothing.	
Physical and chemical properties Information on basic physical and chemical	properties	
General Information Appearance:	Calid	
Colour: Smell:	Solid. Not determined. Not determined	
Odour threshold:	Not determined.	
pH-value:	Not applicable.	
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	242-244°C Not determined Not determined	
Inflammability (solid, gaseous)	Not determined.	
Ignition temperature: Decomposition temperature:	Not determined Not determined	
Self-inflammability:	Not determined	
Danger of explosion:	Product is not explosive.	
Critical values for explosion: Lower: Upper:	Not determined Not determined	
Steam pressure:	Not applicable.	
Density Relative density Vapour density Evaporation rate	Not determined Not determined. Not applicable. Not applicable.	
Segregation coefficient (n-octanol/water):	Not determined.	
Viscosity: dynamic:	Not applicable. Not applicable. No further relevant information available.	
kínematic: Other information		
Other information		
Other information O Stability and reactivity		
Other information 0 Stability and reactivity Reactivity Chemical stability		
Other information 0 Stability and reactivity Reactivity	No decomposition if used and stored according to specifications. No dangerous reactions known	

Trade name 7,8-Dihydroxy-4-methylcomarin		
Hazardous decomposition products:	Light Oxidizing agents Carbon monoxide and carbon dioxide	
11 Toxicological information Information on toxicological effects 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 Toxicity Acquatic toxicity: Persistence and degradability Behaviour in environmental systems: Bioaccumulative potential Mobility in soil Additional ecological information: General notes: Results of PBT and vPvB assessment PBT: vPvB: Other adverse effects	No further relevant information available. No further relevant information available. No further relevant information available. No further relevant information available. 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. Not applicable. Not applicable. Not applicable.	
13 Disposal considerations Waste treatment methods Recommendation Uncleaned packagings:	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.	
Recommendation: Disposal must be made according to official regulations. 14 Transport information Land transport ADR/RID and GGVS/GGVE (cross-border/domestic) ADR/RID-GGVS/E Class: None		
Maritime transport IMDG/GGVSea: IMDG/GGVSea Class: Marine pollutant:	None No	
Air transport ICAO-TI and IATA-DGR: ICAO/IATA Class: Special precautions for user Transport/Additional information: Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	None Not applicable. Not dangerous according to the above specifications. Not applicable.	
15 Regulatory information Safety, health and environmental regulation Labelling according to Regulation (EC) No 1272/2008 Hazard pictograms Signal word Hazard statements Precautionary statements	s/legislation specific for the substance or mixture The substance is classified and labelled according to the CLP regulation.	
National regulations Information about limitation of use: Water hazard class: Chemical safety assessment:	regulations. For use only by technically qualified individuals. Employment restrictions concerning young persons must be observed. Water hazard class 1 (Self-assessment): slightly hazardous for water. A Chemical Safety Assessment has not been carried out.	
this information to ensure proper use and prote not in conformance with this Material Safety Da	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 tta Sheet, or in combination with any other product or process, is the responsibility of the user. t: Health, Safety and Environmental Department. Zachariah C. Holt Global EHS Manager ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) RID: Réglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) IMDE: International Maritime Code for Dangerous Goods (Contd. on page 4) GB	

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IATA: International Air Transport Association	(Contd. of page 3)
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) GHS: Globally Harmonized System of Classification and Labelling of Chemicals	
EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society)	CP