

1 Identification Product identifier



Product name: Uracil Stock number: A15570, L01947 CAS Number: 66-22-8 EC number: 200-621-9 Relevant identified uses of the substance or mixture and uses advised against. Identified use: SU24 Scientific research and development Details of the supplier of the safety data sheet Manufacturer/Supplier: Alfa Aesar Thermo Fisher Scientific Chemicals, Inc. Inerrito Fisher Scheman C. 30 Bond Street Ward Hill, MA 01835-8099 Tel: 800-343-0660 Fax: 800-322-4757 Email: tech @alfa.com www.alfa.com Information Department: Health, Safety and Environmental Department Emergency telephone number: During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789. 2 Hazard(s) identification Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS) The substance is not classified according to the Globally Harmonized System (GHS). Hazards not otherwise classified No information known. I abel elements GHS label elements Not applicable Hazard pictograms Not applicable Signal word Not applicable Hazard statements Not applicable WHMIS classification Not controlled Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) Health (acute effects) = 1 Flammability = 1 Physical Hazard = 1 Other hazards Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable. 3 Composition/information on ingredients Chemical characterization: Substances CAS# Description: 66-22-8 Uracil Identification number(s): EC number: 200-621-9 4 First-aid measures Description of first aid measures After inhalation Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice. After skin contact Immediately 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 a doctor. After swallowing Seek medical treatment. Information for doctor 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 Fire-fighting measures Extinguishing media Suitable extinguishing agents Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture If this product is involved in a fire, the following can be released: Carbon monoxide and carbon dióxide Nitrogen oxides (NOx) Nitrogen oxides (NOX) Advice for firefighters Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit. 6 Accidental release measures Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation Environmental precautions: Do not allow material to be released to the environment without proper governmental permits.

Methods and material for containment and cleaning up: Pick up mechanically.

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Product name: Uracil			
Provention of the test	.,	(Contd. of page 1)	
Prevention of secondary hazards: No Reference to other sections	special measures required.		
See Section 7 for information on safe handling See Section 8 for information on personal protection equipment.			
See Section 13 for disposal information.			
7 Handling and storage			
Handling			
Precautions for safe handling			
Store in cool, dry place in tightly closed of	Keep container tightly sealed. Store in cool, dry place in tightly closed containers.		
Information about protection against explosions and fires: No information known.			
Conditions for safe storage, including any incompatibilities Storage			
Requirements to be met by storeroom	as and receptacles: 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.			
Specific end use(s) No further relevant	information available.		
8 Exposure controls/personal prote	ection		
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.			
Control parameters Components with limit values that require monitoring at the workplace:			
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.			
Additional information: No datá Exposure controls			
Personal protective equipment			
General protective and hygienic measures The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed.			
Keep away from foodstuffs, beverages a Remove all soiled and contaminated clou	nd feëd. thing immediately		
Wash hands before breaks and at the er	nd of work.		
Maintain an ergonomically appropriate working environment. Breathing equipment: Use suitable respirator when high concentrations are present.			
Protection of hands:			
Impervious gloves Check protective gloves prior to each use for their proper condition. The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.			
Penetration time of glove material (in minutes) Not determined			
Eye protection: Safety glasses Body protection: Protective work clothin			
9 Physical and chemical properties Information on basic physical and che			
General Information			
Appearance: Form:	Powder		
Color: Odor:	White Not determined		
Odor threshold:	Not determined.		
pH-value:	Not applicable.		
Change in condition Melting point/Melting range:	≈330 °C (≈626 °F)		
Boiling point/Boiling range:	Not determined '		
Sublimation temperature / start: Flammability (solid, gaseous)	Not determined Not determined.		
Ignition temperature: Decomposition temperature:	Not determined Not determined		
Auto igniting:	Not determined.		
Danger of explosion: Explosion limits:	Not determined.		
Lower:	Not determined		
Upper: Vapor pressure:	Not determined Not applicable.		
Density:	Not applicable. Not determined		
Relative density Vapor density	Not determined. Not applicable.		
Evaporation rate Solubility in / Miscibility with	Not applicable.		
Water:	Not determined		
Partition coefficient (n-octanol/water): Viscosity:	i not aeterminea.		
dynamic: kinematic:	Not applicable. Not applicable.		
Other information	No further relevant information available.		

10 Stability and reactivity

Reactivity No information known. Chemical stability Stable under recommended storage conditions. Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications. Possibility of hazardous reactions Reacts with strong oxidizing agents Conditions to avoid No further relevant information available. Incompatible materials: Oxidizing agents

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Product name: Uracil		ed 0/1 10/10/2012	
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Hazardous decomposition products: Carbon monoxide and carbon dioxide Nitrogen oxides		(Conta. or page 2)	
11 Toxicological information Information on toxicological effects Acute toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) LD/LC50 values that are relevant for classification: No data Skin irritation or corrosion: May cause irritation Eye irritation or corrosion: May cause irritation Sensitization: No sensitizing effects known. Germ cell mutagenicity: The Registry of Toxic Effects of Chemical Substances Carcinogenicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumori No classification data on carcinogenic properties of this material is available from Reproductive toxicity: The Registry of Toxic Effects of Chemical Substances (Specific target organ system toxicity - repeated exposure: No effects known. Aspiration hazard: No effects known. Subacute to chronic toxicity: No effects known. Additional toxicological information: To the best of our knowledge the acute a	s (RTECS) contains mutation data for this substance. igenic and/or carcinogenic and/or neoplastic data for this substance. m the EPA, IARC, NTP, OSHA or ACGIH. (RTECS) contains reproductive data for this substance. n.		
12 Ecological information Toxicity Aquatic toxicity: No further relevant information available. Persistence and degradability No further relevant information available. Bioaccumulative potential No further relevant information available. Mobility in soil No further relevant information available. Additional ecological information: General notes: Do not allow material to be released to the environment without proper governmental permits. Do not allow undiluted product or large quantities to reach ground water, water course or sewage system. Avoid transfer into the environment. Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable. Other adverse effects No further relevant information available.			
13 Disposal considerations Waste treatment methods Recommendation Consult state, local or national regulations to ensure proper disposal. Uncleaned packagings: Recommendation: Disposal must be made according to official regulations.			
14 Transport information			
UN-Number DOT, ADN, IMDG, IATA	Not applicable		
UN proper shipping name DOT, ADN, IMDG, IATA	Not applicable		
Transport hazard class(es)			
DOT, ADR, ADN, IMDG, IATA Class	Not applicable		
Packing group			
DOT, IMĎG, IÀTA Environmental hazards:	Not applicable Not applicable.		
Special precautions for user	Not applicable.		
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code			
Transport/Additional information:			
DOT Marine Pollutant (DOT):	No		
UN "Model Regulation":	-		
 15 Regulatory information Safety, health and environmental regulations/legislation specific for the sur GHS label elements Not applicable Hazard pictograms Not applicable Hazard statements Not applicable National regulations All components of this product are listed in the U.S. Environmental Protection Age and the components of this product are listed in the Canadian Domestic Substances SARA Section 313 (specific toxic chemical listings) Substance is not listed. California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Information about limitation of use: For use only by technically qualified indiv. Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the REACH Regulatit The conditions of restrictions according to Article 67 and Annex XVII of the market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance 	gency Toxic Substances Control Act Chemical substance Inventory. s List (DSL). riduals. rions (EC) No. 1907/2006. Substance is not listed. e Regulation (EC) No 1907/2006 (REACH) for the manufacturing,	, placing on the	
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Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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 not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the use Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/23/2015 / - Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) DOT: US Department of Transportation ENIECS: European International Carriage of Dangerous Goods by Road) DOT: US Department of Transportation ENIECS: European International Carriage of Dangerous Goods by Road) DOT: US Department of Transportation ENIECS: European International Carriage of Dangerous Goods by Road) DOT: US Department of Transportation ENIECS: European Internation Carriage of Dangerous Goods by Road) DOT: US Department of Transportation ENIECS: European Internation Carriage of Dangerous Goods by Road) DOT: US Department of Transportation CAS: Chemical Abstracts Service (division of the American Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Information System (Canada) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent VPUB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) NTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)

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