



1 Identification Product identifier Product name: Astemizole Stock number: J60339 **CAS Number:** 68844-77-9 EC number: 272-441-9 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) ! GHS07 Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. STOT SE 3 H335 May cause respiratory irritation. Hazards not otherwise classified No information known. Label elements GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) 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. P280 Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. P405 WHMIS classification D2B - Toxic material causing other toxic effects Ţ Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) Health (acute effects) = 1Flammàbility = 1 TIVITY 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: 68844-77-9 Astemizole Identification number(s): EC number: 272-441-9 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. (Contd. on page 2)

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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 freatment needed No further relevant information available.

5 Fire-fighting measures

Extinguishing media 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 dioxide Hydrogen filoride (HF) 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. **Environmental preclations:** Do not allow material to be released to the environment will **Methods and material for containment and cleaning up:** Ensure adequate ventilation. **Prevention of secondary hazards:** No special measures required. **Reference to other sections** 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

Hon	dling
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Handling
Precautions for safe handling
Keep container tightly sealed.
Ensure good ventilation at the workplace.
Information about protection against explosions and fires: No information known.
Conditions for safe storage, including any incompatibilities
Storage
Requirements to be met by storerooms and receptacles: Refrigerate
Information about storage in one common storage facility:

Protect from heat. Store away from oxidizing agents. Further information about storage conditions: Keep container tightly sealed. Refrigerate Specific end use(s) 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 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 data

Exposure controls

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. Remove all soiled and contaminated clothing immediately. Wash hands before breaks and at the end of work. Avoid contact with the eves and skin

Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. 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 pat only depends on the material, but also on quality.

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 clothing.

9 Physical and chemical properties

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Information on basic physical and ch General Information Appearance: Form: Color: Odor: Odor threshold:	eemical properties Powder White Not determined Not determined.	
pH-value:	Not applicable.	
pri-value.	Not applicable.	
Change in condition Melting point/Melting range: Boiling point/Boiling range:	149-150 °C (300-302 °F) Not determined	

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roduct name: Astemizole		
		(Contd. of page 2,
Ignition temperature:	Not determined Not determined Not determined	
Decomposition temperature: Auto igniting:	Not determined Not determined.	
Danger of explosion: Explosion limits:	Not determined.	
Lower: Upper:	Not determined Not determined	
Vapor pressure: Density:	Not applicable. Not determined	
Relative density Vapor density	Not determined. Not applicable.	
Evaporation rate Solubility in / Miscibility with	Not applicable.	
Water: Partition coefficient (n-octanol/water):	Not determined Not determined.	
Viscosity: dynamic:	Not applicable.	
kinematic: Other information	Not applicable. No further relevant information available.	
0 Stability and reactivity Reactivity No information known. Chemical stability Stable under recomm Thermal decomposition / conditions to Possibility of hazardous reactions Ree Conditions to avoid No further relevant Incompatible materials: Oxidizing agents Heat Hazardous decomposition products: Carbon monoxide and carbon dioxide Hydrogen fluoride Nitrogen oxides	b be avoided: Decomposition will not occur if used and stored according to specifications. acts with strong oxidizing agents	
1 Toxicological information Information on toxicological effects Acute toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for components in this product. LD/LC50 values that are relevant for classification: No data Skin irritation or corrosion: Causes skin irritation. Eye irritation or corrosion: Causes serious eye irritation. Sensitization: No sensitizing effects known. Germ cell mutagenicity: No effects known. Carcinogenicity: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH. Reproductive toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for this substance. Specific target organ system toxicity - repeated exposure: No effects known. Specific target organ system toxicity - single exposure: May cause respiratory irritation. Aspiration hazard: No effects known. Aubacute to chronic toxicity: No effects known. Subacute to chronic toxicity: No effects known. Aspiration hazard: No effects known. Aubacute to chronic toxicity: No effects known. Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.		
2 Ecological information Toxicity Aquatic toxicity: No further relevant info Persistence and degradability No further Bioaccumulative potential No further re Mobility in soil No further relevant inform Additional ecological information: General notes: Do not allow undiluted product or large q. Avoid transfer into the environment. Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable. Other adverse effects No further relevant	nation available. ne environment without proper governmental permits. uantities to reach ground water, water course or sewage system.	
3 Disposal considerations		
Waste treatment methods Recommendation Consult state, local or Uncleaned packagings: Recommendation: Disposal must be ma	r national regulations to ensure proper disposal. ade according to official regulations.	
4 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, IMDG, IATA	Not applicable	
		(Contd. on page

(Contd. on page 4) USA

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Environmental hazards:	Not applicable.
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of MAR	POL73/78 and the IBC Code Not applicable.
Transport/Additional information:	
DOT Marina Ballutant (DOT):	A1.
Marine Pollutant (DOT):	No
UN "Model Regulation":	
15 Regulatory information	
Safety, health and environmental regulations/le	egislation specific for the substance or mixture d labeled in accordance with 29 CFR 1910 (OSHA HCS)
GHS07	
P305+P351+P338 IF IN EYES: Rinše cautiously wi P304+P340 IF INHALED: Remove person to P405 Store locked up. P501 Dispose of contents/container in National regulations This product is not listed in the U.S. Environmental to research and development only. This product mu product must not be used for commercial purposes This product is not listed on the Canadian Domestic SARA Section 313 (specific toxic chemical listin California Proposition 65 Prop 65 - Chemicals known to cause cancer Sul Prop 65 - Developmental toxicity, female Substance Prop 65 - Developmental toxicity, male Substance Information about limitation of use: For use only	with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. to fresh air and keep comfortable for breathing. in accordance with local/regional/national/international regulations. al Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted nust be used by or directly under the supervision of a technically qualified individual as defined by TSCA. This is or in formulations for commercial purposes. tic Substances List (DSL) or the Canadian Non-Domestic Substances List (NDSL). ings) Substance is not listed. Not listed. tance is not listed. hot listed. ly by technically qualified individuals. regulations rding to the REACH Regulations (EC) No. 1907/2006. Substance is not listed. ticle 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the and substance is not listed is not listed. If a protection for use) Substance is not listed. If a protection is the regulation is not listed. If a protection is the regulation is not listed. If a protection is the regulation is not listed. If a protection is not listed. If a protection is the regulation is not is the regulation is not listed. If a protection is not listed. If a protection is not is the regulation is not is not listed. If a protection is not is the regulation is not is not is not listed. If a protection is not
information to ensure proper use and protect the he conformance with this Material Safety Data Sheet,	supplement to other information gathered by them, and should make independent judgement of suitability of this health and safety of employees. This information is furnished without warranty, and any use of the product not in , or in combination with any other product or process, is the responsibility of the user.
Department issuing SDS: Global Marketing Depa Date of preparation / last revision 11/24/2015 / - Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereu DOT: US Department of Transportation EINECS: European Inventory of Existing Commercial Chemical Sub CAS: Chemical Abstracts Service (division of the American Chemica HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information System (Cana LCS0: Lethal dose, 50 percent UPVB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienist.	artment - euses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) ubstances ical Society) nada) sts (USA)

vPvB: 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)

USA