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1 Identification Product identifier
Product name: <u>Nifedipine</u> Stock number: J62811 CAS Number: 21829-25-4 EC number:
244-598-3 Details of the supplier of the safety data sheet Manufacturer/Supplier: Alfa Aesar
Thermo Fisher Scientific Chemicals, Inc. 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
Acute Tox. 4 H302 Harmful if swallowed. 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 H302 Harmful if swallowed.
Precautionary statements P264 Wash thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. P330 Rinse mouth. P501 Dispose of contents/container in accordance with local/regional/national/international regulations. WHMIS classification
D2A - Very toxic material causing other toxic effects
Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System)
HEALTH I HEALTH I HEALTH I FIRE I REACTIVITY 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: 21829-25-4 Nifedipine Concentration: ≤100% Identification number(s): EC number: 244-598-3
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 Harmful if swallowed. (Contd. on page 2)

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Product name: Nifedipine

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 dioxide Nitrogen oxides (NOx) Advice for firefighters Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.

6 Accidental release measures

Change in condition Melting point/Melting range:

171-175 °C (340-347 °F)

Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away Ensure adequate ventilation 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: Dispose of contaminated material as waste according to section 13. Prevention of secondary hazards: No special measures required. Reference to other sections See Section 7 for information on safe handling See Section 7 for information on personal protection equipment. See Section 13 for disposal information. Protective Action Criteria for Chemicals PAC-1: Substance is not listed **PAC-1:** Substance is not listed **PAC-2:** Substance is not listed PAC-3: Substance is not listed. 7 Handling and storage Handling Precautions for safe handling Keep container tightly sealed. Store in cool, dry place in tightly closed containers. 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: 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 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. Maintain an ergonomically appropriate working environment. Breathing equipment: Use suitable respirator when high concentrations are present. Recommended filter device for short term use: Use a respirator with type N95 (USA) or PE (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards. Protection of hands: Impervious gloves 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. Material of gloves Nitrile rubber, NBR Penetration time of glove material (in minutes) 480 Glove thickness 0.11 mm Eye protection: Safety glasses Body protection: Protective work clothing. 9 Physical and chemical properties Information on basic physical and chemical properties General Information Appearance: Form: Powder Odor: Not determined Odor threshold: Not determined pH-value: Not applicable.

Safety Data Sheet

Product name: Nifedipine			
	(Contd. of page 2)		
Boiling point/Boiling range:	Not determined		
Sublimation temperature / start:	Not determined		
Flammability (solid, gaseous) Ignition temperature:	Not determined. Not determined		
Decomposition temperature:	Not determined Not determined		
Auto igniting:	Not determined.		
Danger of explosion:	Not determined.		
Explosion limits:	N / / / / /		
Lower: Upper:	Not determined Not determined		
Vapor pressure:	Not applicable.		
Vapor pressure: Density:	Not applicable. Not determined		
Relative density Vapor density	Not determined. Not applicable.		
Evaporation rate	Not applicable.		
Solubility in / Miscibility with			
Water: Partition coefficient (n-octanol/water):	Not determined		
Viscosity:	Not determined.		
dynamic:	Not applicable.		
kinematic:	Not applicable.		
Other information	No further relevant information available.		
10 Stability and reactivity			
10 Stability and reactivity			
Reactivity No information known. Chemical stability Stable under recomn			
Thermal decomposition / conditions to	b be avoided: Decomposition will not occur if used and stored according to specifications.		
Possibility of hazardous reactions Rea	acts with strong oxidizing agents		
Conditions to avoid No further relevant	information available.		
Incompatible materials: Oxidizing agen Hazardous decomposition products:	IS		
Carbon monoxide and carbon dioxide			
Nitrogen oxides			
11 Toxicological information			
Information on toxicological effects Acute toxicity:			
Harmful if swållowed.			
	I Substances (RTECS) contains acute toxicity data for this substance.		
LD/LC50 values that are relevant for c	assification:		
Oral LD50 1022 mg/kg (rat)	instation		
Skin irritation or corrosion: May cause	initation		
Eye irritation or corrosion: Maý cause irritation Sensitizațion: 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: No effects known. Aspiration hazard: No effects known.			
Aspiration hazard: No effects known. Subscute to chronic taxicity: The Pagistry of Taxic Effects of Chemical Substances (PTECS) contains multiple does taxicity data for this substance			
Subacute to chronic toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substance. Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.			
Carcinogenic categories			
	Ith Administration) Substance is not listed.		
12 Ecological information			
Toxicity			
Aquatic toxicity: No further relevant info	ormation available.		
Persistence and degradability No further relevant information available. Bioaccumulative potential No further relevant information available. Mobility in soil No further relevant information available.			
Bioaccumulative potential No further relevant information available.			
Additional ecological information:	וומוטור מימוומאוס.		
General notes:			
Do not allow material to be released to the	ne environment without proper governmental permits. L'artitles to reach ground water, water course or sewage system		
Do not allow undiluted product or large quantities to reach ground water, water course or sewage system. Avoid transfer into the environment			
Avoid transfer into the environment. Results of PBT and vPvB assessment			
PBT: Not applicable.			
vPvB: Not applicable. Other adverse effects No further releva	nt information available.		
13 Disposal considerations			
Waste treatment methods	r national regulations to ansure prener dispasal		
Recommendation Consult state, local or national regulations to ensure proper disposal. Uncleaned packagings: Recommendation: Disposal must be made according to official regulations.			
Recommendation: Disposal must be ma	ade according to official regulations.		
14 Transport information			
UN-Number DOT, ADN, IMDG, IATA	Not applicable		
UN proper shipping name			
DOT, ADR, ADN, IMDG, IATA	Not applicable		
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Product name: Nifedipine

		(Contd. of page 3)
Transport hazard class(es)		
DOT, ADR, ADN, IMDG, IATA Class	Not applicable	
Packing group DOT, ADR, IMDG, IATA	Not applicable	
Environmental hazards: Marine pollutant (IMDG):	No	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex II of MARPO	L73/78 and the IBC Code Not applicable.	
Transport/Additional information:		
DOT Marine Pollutant (DOT):	Νο	
UN "Model Regulation":	Not applicable	

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms



Signal word Warning

Hazard statements H302 Harmful if swallowed.

 Procautionary statements

 P264
 Wash thoroughly after handling.

 P270
 Do not eat, drink or smoke when using this product.

 P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

 P300
 Rinse mouth.

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations All components of this product are listed on the Canadian Domestic Substances List (DSL). This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted to research and development only. This product must be used by or directly under the supervision of a technically qualified individual as defined by TSCA. This product must not be used for commercial purposes or in formulations for commercial purposes. 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 21829-25-4 Nifedipine

Prop 65 - Developmental toxicity, female

21829-25-4 Nifedipine

Prop 65 - Developmental toxicity, male

21829-25-4 Nifedipine

Information about limitation of use: For use only by technically qualified individuals. Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed. The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.

Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed. 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 Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. Department issuing SDS: Global Marketing Department Date of preparation / last revision 03/20/2017 / 2 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) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IA1A: International Air Transport Association EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Horardous Materials Identification System (USA) WHMIS: Warkplace Hazardous Materials Information System (Canada) LC50: Lethal concentration, 50 percent DBT: Persistent, Bioaccumulative and Toxic SVHC: Substances of Very High Concern VPWE: very Persistent, and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) MTP: National Toxicology Program (USA) ARC: International Protection Agency (USA) Acute Tox. 4: Acute toxicity – Category 4 conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.