



Reviewed on 11/06/200
1 Identification
Product identifier Product name: N-Methyl-4-nitro-alpha-toluenesulfonamide
Stock number: H25795
CAS Number: 85952-29-0
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.
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)
CHS07
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation. STOT SE 3 H335 May cause respiratory 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/sprav
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.
P405 Store locked up. P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
WHMIS classification D2B - Toxic material causing other toxic effects
$\bigcirc$
Classification system
HMIS ratings (scale 0-4) (Hazardous Materials Identification System)
HEALTH I Health (acute effects) = 1 FIRE I Flammability = 1
REACTIVITY Physical Házard = 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: 85952-29-0 N-Methyl-4-nitro-alpha-toluenesulfonamide
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. (Contd. on page 2
USA USA

## Product name: N-Methyl-4-nitro-alpha-toluenesulfonamide

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Information for doctor Information of doctor Information and effects, both such and delayed to be there relevant information available Information of unput information and effects and and special settiment needed to further relevant information available.  Source of the setting and a such as and the setting of the setting relevant information available.  Source of the setting and a such as and the setting of the setting of the setting relevant information available.  Source of the setting and the setting of the set in the setting of the se	Product name: N-Methyl-4-nitro-alph	na-toluenesulfonamide			
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Subjects exiting using agents Carton disords: exitinguishing provide or water spray. Fight larger fires with water spray or alcohol resistant foam. If this products is not be following can be released: Carton managers is showed in a file the following can be released: Carton managers is showed in a file the following can be released: Carton managers is showed in a file the following can be released: Carton managers is showed in a file the following can be released: Carton managers is showed in a file the following can be released: Carton managers is showed in a file the following can be released: Carton managers is showed in a file the following can be released: For showed in a file the following can be released: For showed in a file the following can be released: For showed in a file the following can be released: For showed in a file the following can be released: For showed in a file the following can be released in the antivorment whout proper governmental permits. For showed in a file the following can be released in the antivorment whout proper governmental permits. For showed is a file the following can be released in the antivorment whout proper governmental permits. For showed is a file the following can be handling See Secon 1 for information or parsault production equipment. See Secon 1 for information or parsault production equipment. See Secon 1 for information or parsault production equipment. See Secon 1 for information or parsault production adjustment. See Secon 1 for information and bandling See Secon 1 for an elevant protection adjust scrapholation in nown. Conditions for safe storage in and example in the showed containers. Store in a cost, by table in thing water containers. For another show is showed containers. For another showed contai	5 Fire-fighting measures				
G Accidental release measures     Presentions protective equipment and emergency procedures     Cravit editorial presentions: Do not allow instantial to be velocities     Environmental presentions: Do not allow instantial to be velocities     Environmental presentions: Do not allow instantial to be velocities     Environmental presentions: Do not allow instantial to be velocities     Environmental presentions: Do not allow instantial to be velocities     Environmental presentions: Do not allow instantials     Environmental presentions: Do not allow instantials     Environmental presentions     Environmental presention     Environmental presention     Environmental presentions     Environmental presentions     Environmental presention     Environmental presenting     Environmental presention     Environmental p	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) Sulfur oxides (SOx) Advice for firefighters Protective equipment: Wear self-contained respirator.				
Prescultors, protective equipment: and emergency procedures           Wear protective equipment: And emergency procedures           Reversion of secondary heards: No special measures required.           See Section 6 for information on personal protection equipment.           See Section 6 for information on personal protection equipment.           See Section 6 for information and protection equipment.           See Section 6 for information endered.           Protective equipment: And endered.           Protective equipment: And endered.           Statistic code of protection against explosions and free: No information known.           Information about storage on the containers.           Statistic code of protection against explosions and free; Storage Containers.           Statistic code of protection against explosions and incomparise.           Represente information about storage ontainers.           Statistic code of protection against explosion and incomparise.           Represente end use(s) No kinther relevant information available.           8 Explosine information available.           8 Explosine information a					
Handling Precautions for safe handling Keen container lightly sealed.         Ensure good welfbelion at the workplace.         Ensure good welfbelion at the workplace.         Information about protection against explosions and fires: No information known.         Conditions for safe storage, information about protection against explosions and receptacles: No special requirements.         Enderson about storage conditions: Keep container lightly sealed.         Sepecific end use(s) No further relevant information available.         Control parameters         Comportant swith limit values that require monitoring at the workplace: Not required.         Additional information hoot data         Exposure controls         The usual precautionary measures for handling chemicals should be followed.         Keep away from bodd(K).         Keep away from bodd(K).         Week hands before brakes and at the end of work.         Matting in an engronmability appropriate working envincompat.         Matting in	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: 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.				
Handling Precautions for safe handling Keen container lightly sealed.         Ensure good welfbelion at the workplace.         Ensure good welfbelion at the workplace.         Information about protection against explosions and fires: No information known.         Conditions for safe storage, information about protection against explosions and receptacles: No special requirements.         Enderson about storage conditions: Keep container lightly sealed.         Sepecific end use(s) No further relevant information available.         Control parameters         Comportant swith limit values that require monitoring at the workplace: Not required.         Additional information hoot data         Exposure controls         The usual precautionary measures for handling chemicals should be followed.         Keep away from bodd(K).         Keep away from bodd(K).         Week hands before brakes and at the end of work.         Matting in an engronmability appropriate working envincompat.         Matting in	7 Handling and storage				
Storage       The storage of the storage facility: Storage fac	Handling Precautions for safe handling Keep container tightly sealed. Store in cool, dry place in tightly closed of Ensure good ventilation at the workplace	containers. <del>3.</del> e <b>xplosions and fires:</b> No information known.			
Requirements to be met by storerooms and receptacles: No special requirements.         Information about storage conditions:         Further Information about storage conditions:         Store in co.d 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 lume 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: Not required.         Additional information: No data         Exposure controls         Personal protective equipment         Mersonal protective equipment         Mersonal protective equipment         Mersonal protective equipment         Mersonal protective equipment         Remove all solied and contaminated clothing immediately.         Wash tantab before breaks and at the mathing chemicals should be followed.         Keep away solied and contaminated clothing immediately.         Wash tantab before breaks and at the mathing chemicals and use on quality.         Wash tantab before breaks and at the minutes.         Protection of hands:         Improve all solide gives not only depends on the material, but also on quality.		any incompatibilities			
8 Exposure controls/personal protection         Additional information about design of technical systems:         Properly operating chemical turne hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.         Control parameters         Properly operating chemical trans and the parameters         General protective and hydienic measures         The usual processition and hydienic measures         Wash hands before breaks and at the of divert.         Additional training equipment:         Breathing equipment:         Breathing equipment:         Impervision of suitable respirator when high concentrations are present.         Protection of suitable gioves not only depends to the material,	Requirements to be met by storeroom Information about storage in one com Further information about storage con Keep container tightly sealed. Store in cool, dry conditions in well seale	u <b>mon storage facility:</b> Store away from oxidizing agents. nditions: ed containers.			
Control parameters         Components with imit values that require monitoring at the workplace: Not required.         Additional information: No data         Exposure controls         Personal protective equipment         General protective and hygienes for handling chemicals should be followed.         Keep away from foodkilfs, beverages and fed.         Remove all solied and contaminated clothing immediately.         Wash hands before breaks and at the end of work.         Avoid contact with the eyes and skin.         Maintain a regronmically appropriate working environment.         Breathing equipment: Use suitable respirator when high concentrations are present.         Protection of hands:         Impervious gloves         Optocking gloves         Body protection: Safety glasses         Body protection: Protection: Protection: Protection work clothing.         9 Physical and chemical properties         Information on basic physical and chemical properties         General Information         Appearance:         Cotic:       Crestalline powder         Core:       Crestalline powder         Core:       Crestalline powder         Core:       Crestalline powder         Core:       Crestalline point/Belling range:         hormation on basic physical and chemical properties<	8 Exposure controls/personal protection Additional information about design of technical systems:				
Exposure controls         Personal protective equipment         General 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 solied and contaminated clothing immediately.         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 status of the expension of suitable respirator when high concentrations are present.         Protection 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: Setting glasses         Body protection: Protective work clothing.         9 Physical and chemical properties         General Information         Appearance:         Port         Color:       Creat         Color:       Creat         Odor       Not determined         Didor       Not determined         Maintain an ergonomical properties         Form:       Crystalline powder	Control parameters				
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: Safely glasses         Body protection: Protective work clothing.         9 Physical and chemical properties         Information on basic physical and chemical properties         General Information         Appearance:         Form:       Crystalline powder         Color:       Cream         Odor threshold:       Not determined         Odor threshold:       Not determined         pH-value:       Not applicable.         Change in condition       Not determined         Sublimation temperature / start:       Not determined         Sublimation temperature / start:       Not determined         Sublimation temperature:       Not determined         Sublimation temperature:       Not determined         Sublimation temperature:       Not determined         Sublimation temperature:       Not determined         Hord       Not determined         Sublimation temperature:       Not determined         Hord       Not deter	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 eyes and skin. Maintain an ergonomically appropriate working environment. Breathing equipment: Use suitable respirator when high concentrations are present.				
Information on basic physical and chemical properties         General Information         Appearance:         Form:       Crystalline powder         Color:       Cream         Odor:       Not determined         Odor threshold:       Not determined.         pH-value:       Not applicable.         Change in condition       Melting point/Melting range:         Melting point/Melting range:       151-153 °C (304-307 °F)         Boiling point/Boiling range:       Not determined         Sublimation temperature / start:       Not determined         Flash point:       Not applicable         Flash point:       Not determined         Flast point:       Not determined         Junition temperature:       Not determined         Decomposition temperature:       Not determined	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. <b>Penetration time of glove material (in minutes)</b> Not determined <b>Eve protection:</b> Safety glasses				
Information on basic physical and chemical properties         General Information         Appearance:         Form:       Crystalline powder         Color:       Cream         Odor:       Not determined         Odor threshold:       Not determined.         pH-value:       Not applicable.         Change in condition       Melting point/Melting range:         Melting point/Melting range:       151-153 °C (304-307 °F)         Boiling point/Boiling range:       Not determined         Sublimation temperature / start:       Not determined         Flash point:       Not applicable         Flash point:       Not determined         Flast point:       Not determined         Junition temperature:       Not determined         Decomposition temperature:       Not determined	9 Physical and chemical properties				
Form:       Crystalline powder         Color:       Cream         Odor:       Not determined         Odor threshold:       Not determined.         pH-value:       Not applicable.         Change in condition       Mot determined         Melting point/Melting range:       151-153 °C (304-307 °F)         Boiling point/Boiling range:       Not determined         Sublimation temperature / start:       Not determined         Flash point:       Not applicable         Flash point:       Not applicable         Flammability (solid, gaseous)       Not determined.         Jgnition temperature:       Not determined.         Decomposition temperature:       Not determined	Information on basic physical and che General Information Appearance:				
pH-value:       Not applicable.         Change in condition       Instant State         Melting point/Melting range:       151-153 °C (304-307 °F)         Boiling point/Boiling range:       Not determined         Sublimation temperature / start:       Not determined         Flash point:       Not applicable         Flammability (solid, gaseous)       Not determined         Ignition temperature:       Not determined         Decomposition temperature:       Not determined	Form: Color: Odor:	Cream ' Not determined			
Change in condition       Melting point/Melting range:       151-153 °C (304-307 °F)         Boiling point/Boiling range:       Not determined         Sublimation temperature / start:       Not determined         Flash point:       Not applicable         Flammability (solid, gaseous)       Not determined.         Ignition temperature:       Not determined         Decomposition temperature:       Not determined					
Flammability (solid, gaseous)       Not determined.         Ignition temperature:       Not determined         Decomposition temperature:       Not determined	Change in condition Melting point/Melting range: Boiling point/Boiling range:	151-153 °C (304-307 °F) Not determined			
	Flammability (solid, gaseous) Ignition temperature:	Not determined. Not determined			
			(Contd. on page 3) USA		

## Product name: N-Methyl-4-nitro-alpha-toluenesulfonamide

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	(Contd. of page		
Auto igniting:	Not determined.		
Danger of explosion: Explosion limits:	Product does not present an explosion hazard.		
Lower:	Not determined		
Upper:	Not determined		
Vapor pressure:	Not applicable. Not determined		
Density: Relative density	Not determined		
Vapor density	Not applicable.		
Evaporation rate Solubility in / Miscibility with	Not applicable.		
Water:	Not determined		
Partition coefficient (n-octanol/water)	: Not determined.		
Viscosity: dynamic:	Not applicable.		
kinematic:	Not applicable.		
Other information	Not applicable. No further relevant information available.		
10 Stability and reactivity			
10 Stability and reactivity			
Reactivity No information known. Chemical stability Stable under recom	mended storage conditions		
Thermal decomposition / conditions	mended storage conditions. to be avoided: Decomposition will not occur if used and stored according to specifications.		
Possibility of hazardous reactions No	o dangerous reactions known		
Conditions to avoid No further relevan Incompatible materials: Oxidizing age			
Hazardous decomposition products:			
Carbon monoxide and carbon dioxide			
Nitrogen oxides Sulfur oxides (SOx)			
11 Toxicological information			
Information on toxicological effects Acute toxicity: No effects known.			
LD/LC50 values that are relevant for o	zlassification: No data		
Skin irritation or corrosion: Causes sl	kin irritation.		
Eye irritation or corrosion: Causes se	rious eye irritation.		
Sensitization: No sensitizing effects kni Germ cell mutagenicity: No effects kni	DWD.		
Carcinogenicity: No classification data	on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.		
Reproductive toxicity: No effects know	m.		
Specific target organ system toxicity Specific target organ system toxicity	<ul> <li>repeated exposure: No effects known.</li> <li>single exposure: May cause respiratory irritation.</li> </ul>		
Aspiration hazard: No effects known.	Single exposure: may cause respiratory initiation.		
Subacute to chronic toxicity: No effect	its known.		
	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.		
12 Ecological information			
Toxicity			
Aquatic toxicity: No further relevant inf Persistence and degradability No furth	ormation available.		
Bioaccumulative potential No further	ter relevant information available.		
Mobility in soil No further relevant infor	mation available.		
Additional ecological information:			
General notes:	he environment without proper governmental permits.		
Do not allow undiluted product or large	ne environment widrout proper governmental permits. Juantities to reach ground water, water course or sewage system.		
Avoid transfer into the environment.	quantities to reach ground water, water coursé or sewage system.		
Results of PBT and vPvB assessmen PBT: Not applicable.	t		
vPvB: Not applicable.			
Other adverse effects No further releva	ant 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 m	ade according to official regulations.		
14 Transport information			
Not a hazardous material for transportat	ion.		
UN-Number DOT, IMDG, IATA	None		
UN proper shipping name			
DOT, IMDG, IATA Č	None		
Transport hazard class(es)			
DOT, ADR, IMDG, IATA	None		
Class Packing group	None		
Packing group DOT, IMDG, IATA	None		
Environmental hazards:	Not applicable.		
Special precautions for user	Not applicable.		
	I of MARPOL73/78 and the IBC Code Not applicable.		
	(Contd. on pa		

Product name: N-Methyl-4-nitro-alpha-toluenes	sulfonamide
	(Contd. of page 3)
Transport/Additional information:	Not dangerous according to the above specifications.
DOT Marine Pollutant (DOT):	No
<b>15 Regulatory information</b> Safety, health and environmental regulations/legisli GHS label elements The product is classified and labe Hazard pictograms GHS07	
P305+P351+P338 IF IN EYES: Rinše cautiously with w P304+P340 IF INHALED: Remove person to fre P405 Store locked up. P501 Dispose of contents/container in acc National regulations This product is not listed in the U.S. Environmental Pro to research and development only. This product must be product must not be used for commercial purposes or i SARA Section 313 (specific toxic chemical listings) California Proposition 65 Prop 65 - Chemicals known to cause cancer Substa Prop 65 - Developmental toxicity, female Substance Prop 65 - Developmental toxicity, male Substance is Information about limitation of use: For use only by Other regulations, limitations and prohibitive regula Substance of Very High Concern (SVHC) according	lothing/eye protection/face protection. water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. sh air and keep comfortable for breathing. cordance with local/regional/national/international regulations. ptection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted be used by or directly under the supervision of a technically qualified individual as defined by TSCA. This in formulations for commercial purposes. ) Substance is not listed. sted. is not listed. is not listed. is not listed. atoms f to the REACH Regulations (EC) No. 1907/2006. Substance is not listed. 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the uthorisation for use) Substance is not listed.
information to ensure proper use and protect the health	ement to other information gathered by them, and should make independent judgement of suitability of this h and safety of employees. This information is furnished without warranty, and any use of the product not in n combination with any other product or process, is the responsibility of the user.
Department issuing SDS: Global Marketing Departme Date of preparation / last revision 11/24/2015 / - Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transport Association IATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American Chemical Soc HMIS: Hazardous Materials Information System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LC50: Lethal dose Hazardous Materials Information System (Canada) LC50: Lethal dose, 50 percent VPVB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (US OSHA: Occupational Safety and Health Administration (USA) NTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)	ciety)