



	Revie	wea on 09/24/2015
1	1 Identification	
	Product identifier Product name: trans,trans-4-n-Butyl-4'-(3,4-difluorophenyl)bicyclohexyl	
	Stock number: H56117	
	CAS Number: 82832-58-4	
	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	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.	
	Label 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 I Health (acute effects) = 1 FIRE I Flammability = 1 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:	
	82832-58-4 trans,trans-4-n-Butyl-4'-(3,4-difluorophenyl)bicyclohexyl	
4	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.	
ł	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 Hydrogen fluoride (HE)	
	Hydrogen fluoride (HF) Advice for firefighters Bretevice continue contin	
	Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.	
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0	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 product to reach sewage system or any water course. Methods and material for containment and cleaning up: Pick up mechanically.	
	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.	
		(Contd. on page 2)
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## Product name: trans,trans-4-n-Butyl-4'-(3,4-difluorophenyl)bicyclohexyl

(Contd. of page 1)

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See Section	131010	uisposai	тпотпацоп.

See Section 13 for disposal information.		(Conta. of page 1)					
7 Handling and storage							
Handling         Precautions for safe handling         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 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.         Store in cool, dry conditions in well sealed containers.         Specific end use(s) No further relevant information available.							
Additional information about design of Properly operating chemical fume hood d	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.						
Components with limit values that requ	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 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. 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. Eve protection: Safety glasses							
Body protection: Protective work clothin	<i>IG.</i>						
Color: Odor:	Solid White Not determined						
	Not determined. Not applicable.						
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: Flammability (solid, gaseous) Ignition temperature: Decomposition temperature:	Not determined Not determined Not determined Not determined Not determined Not determined Not determined Not determined						
Danger of explosion: Explosion limits:	Not determined. Not determined						
Upper: Vapor pressure: Density: Relative density Vapor density Evaporation rate Solubility in / Miscibility with Water:	Not determined Not applicable. Not determined Not determined. Not applicable. Not applicable. Not determined						
Partition coefficient (n-octanol/water): Viscosity: dynamic: kinematic: Other information	Not determined. Not applicable. Not applicable. No further relevant information available.						
10 Stability and reactivity Reactivity No information known.							

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 Hazardous decomposition products: Carbon monoxide and carbon dioxide Hydrogen fluoride

## Product name: trans,trans-4-n-Butyl-4'-(3,4-difluorophenyl)bicyclohexyl

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.         4       Transport information         UN-Number DOT, ADN, IMDG, IATA       Not applicable         UN proper shipping name DOT, ADN, MIDG, IATA       Not applicable         DOT, ADR, ADN, IMDG, IATA       Not applicable         Transport hazard class(es)       DOT, ADR, ADN, IMDG, IATA         DOT, ADR, ADN, IMDG, IATA       Not applicable         Packing group       Not applicable         POT, IMMG, IATA       Not applicable         Packing group       Not applicable         DOT, MIDR, IATA       Not applicable         Packing group       Not applicable         DOT, IMMG, IATA       Not applicable         Packing group       Not applicable         DOT, IMMG, IATA       Not applicable         Favironmental hazards:       Not applicable.         Transport in bulk according to Annex II of MARPOLT3/78 and the IBC Code Not applicable.       Transport/Additional information:         DOT       Marine Pollutant (DOT):       No         UN "Model Regulation":       -       -         5       Sequestion and the applicable of the substance or mixture       Hazard picable of the applicable of the applicabl			(Contd. of page 2)			
Information on boxicological effects Large box/live, we effects income Large box/live, we effects income Large box/live, we effects income Sensitization: No sensitizing effects income. Sensitization: No effects income. Sensitization income inco	11 Toxicological information					
LDLCSQ values that are relevant for classification: No data Systematic relevant for classification: No sensitivity Sensitization: No sensitivity of class information Sensitization: No sensitivity of class information Sensitization: No sensitivity of class information Sensitization: No effects known. Separate climitation: No effects known. Aspiration hazard: No effects known. Aspiration hazard: No effects known. Additional toxicological information to the basi of our knowledge the acute and chronic toxicity of this substance is not fully known.  Ecological information To the basi of our knowledge the acute and chronic toxicity of this substance is not fully known.  Ecological information To the basi of our knowledge the acute and chronic toxicity of this substance is not fully known.  Ecological information Information available.  Fersitemes and degradability No lumber relevant information available.  Additional ecological information Foricity Adjustic boxicity: No further relevant information available.  Additional ecological information Foricity Adjustic boxicity: No further relevant information available.  Additional ecological information Foricity Adjustic boxicity: No further relevant information available.  Additional ecological information Foricity Adjustic boxicity: No further relevant information available.  Additional ecological information Foricity Adjustic boxicity: No further relevant information available.  Additional ecological information Foricity	Information on toxicological effects					
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Sensitization: No sensitizing offects known. Germ cell mutipencity: No effects known. Seperitic larget organ system toxicity: No effects known. Specific larget organ system toxicity: repeated exposure: No effects known. Specific larget organ system toxicity: repeated exposure: No effects known. Specific larget organ system toxicity: repeated exposure: No effects known. Specific larget organ system toxicity: repeated exposure: No effects known. Additional toxicological information: Additional toxicological information: To the basi of our knowledge the acute and chronic toxicity of this substance is not fully known. 22 Ecological information: Additional toxicological information: To the basi of our knowledge the acute and chronic toxicity of this substance is not fully known. 22 Ecological information: Control toxicity: No further relevant information available. Beaccumulative potential No further relevant information available. Beaccumulative potential No further relevant information available. Additional ecological information: Control adve: unbillated product or large quantities to reach ground water, water course or sevage system. Results of PT and VPd assessment PBT: Not applicable. Disposal considerations Waste treatment methods Recommendation: Consult state, local or national regulations to ensure proper disposal. Uncleaned packagings: Intervent methods Recommendation: Deposed must be made according to official regulations. 47 Transport Information UN Number: DOT, ADN, MMC, IATA Not applicable Povir ADN, MMC, IATA Not applicable Invironmental hazard: Not applicable Forvironmental h	Skin irritation or corrosion: May cause irritation					
Carcinggenicity: No classification data on carcinogene properties of this naterial is available from the EPA, IARC, NTP, OSHA or ACGIR, Specific target orgen system toxicity - repeated exposure: No effects known. Application terms in the dest known. Additional toxicological information: To the best of our knowledge the acue and chronic toxicity of this substance is not fully known. 2 Ecological information: To the best of our knowledge the acue and chronic toxicity of this substance is not fully known. 2 Ecological information: To the best of our knowledge the acue and chronic toxicity of this substance is not fully known. 2 Ecological information available. Biasecumulative potential No further relevant information available. Biasecumulative potential No further relevant information available. 2 Biasecumulative the environmation: 2 Biasecumulative the environmation: 2 Biasecumulative the environmation: 2 Biasecumulative the environmation: 2 Bisposal considerations 2 Bisposal considerations 2 Bisposal consideration 2 Bisposal considera	Sensitization: No sensitizing effects known.					
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Specific target organ system toxicity - single exposure: No effects known: Additional toxicological information: To the bast of our knowledge the acute and chronic toxicity of this substance is not fully known. 2 Ecological information: To the bast of our knowledge the acute and chronic toxicity of this substance is not fully known. 2 Ecological information: To the bast of our knowledge the acute and chronic toxicity of this substance is not fully known. 2 Ecological information available: Persistence and degradability to turber relevant information available: Mobility in soil No further relevant information available: 2 Ecological information: 2 Ecologi	Reproductive toxicity: No effects known.					
Aspiration hazard: No effects known: Additional foxicological information: To the beat of our knowledge the acute and chronic toxicity of this substance is not fully known. Ecological Information Foricity Additional coxicological information available. Persistence and degradability No further relevant information available. Relevant information: Foricity Additional ecological information: Persistence and degradability No further relevant information available. Relevant information: Persistence and degradability No further relevant information available. Relevant information: Relevant information: Persistence and degradability No further relevant information available. Relevant information: Persistence and degradability No further relevant information available. Relevant information: Persistence and low unditude product or large quantities to reach ground water, water course or sewage system. Additional ecological information: Persistence and experiment PET: Not applicable. Other adverse effects No further relevant information available. 3D isposal consideration: Wests treatment micro. State: Additional ecological information Wests treatment information: UN Number DOT, ADN, MDOC, IATA UN Aumber DOT, ADN, MDOC, IATA DOT, ADN, MDOC, IATA DOT, ADN, MDOC, IATA DOT, ADN, MDOC, IATA DOT, ADN, MDOC, IATA Not applicable Pot, MDN, MDC, IATA Not applicable Pot, MDN, MDC, IATA Not applicable Pot, MDN, MDC, IATA Not applicable Pot, MDN, MDC, IATA Not applicable Pot, MDN, MDN, IATA Not applicable Pot,	Specific target organ system toxicity - repeated exposure: No effects know. Specific target organ system toxicity - single exposure: No effects known.	n.				
Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.         22 Ecological information         Toxicity         Additional coxic degradability No further relevant information available.         Resistence and degradability No further relevant information available.         Mobility in soil No further relevant information available.         Additional ecological information:         Do not allow undiluced product or large quantities to reach ground water, water course or sewage system.         Avoid transfer into the environment.         Regulato of PBT and PVG assessment         VPB: Not applicable.         Other adverse effects No further relevant information available.         30 Disposal consideration:         Waste treatment methods         Recommendation: Disposal must be made according to official regulations.         41 Transport Information         UN Number         DoT, ADN, IMDG, IATA         Not applicable         DoT, ADN, IMDG, IATA         Not applicable         DoT, ADN, IMDG, IATA         Not applicable         DoT, ADN, MMOG, IATA         Transport hazard class(es)         DOT, ADN, IMDG, IATA         Not applicable         David applicable         Revironmental hazard	Aspiration hazard: No effects known					
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Torticity         Torticity is for further relevant information available.           Persistence and degradability No further relevant information available.           Bioaccumulative potential No further relevant information available.           Modify in soil No further relevant information available.           Rescumulative potential No further relevant information available.           Modify in soil No further relevant information available.           Reneral notes:           Do not allow undiluted product or large quantities to reach ground water, water course or sewage system.           Avoid trainger inform the environment.           Personal poincable.           Other adverse effects No further relevant information available.           3 Disposal considerations           Waste treatment methods           Recommendation: Consult state, local or national regulations to ensure proper disposal.           Uncleaned packagings:           Recommendation: Consult state, local or national regulations.           41 Transport information           UVI.vumber           DoT, ADN, MDG, IATA           DVI Prover shipping rame           DOT, ADN, ADN, MDG, IATA           DOT, ADN, ADN, MDG, IATA           DOT, MDG, IATA           DOT, MDG, IATA           DOT, MDG, IATA           DOT, MDG, IATA           Not applicable	12 Ecological information					
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Additional ecological information: Do not allow the environment is environment if the quantities to reach ground water, water course or sewage system. Provide allow the environment is environment if the quantities to reach ground water, water course or sewage system. Provide allow the environment is environment if the quantities to reach ground water, water course or sewage system. Provide adverse effects No further relevant information available. 3 Disposal considerations Waste treatment methods Recommendation Consult state, local or national regulations to ensure proper disposal. Recommendation: Disposal must be made according to official regulations. 4 Transport Information UN-Number DOT, ADN, MDG, IATA Not applicable Not applicable DOT, ADN, MDG, IATA Not applicable Transport hazard class(es) DOT, ADN, MDG, IATA Not applicable Packing group DOT, ADN, MDG, IATA Not applicable Environmental hazards: Not applicable Environmental hazards: Not applicable Transport in bulk according to MARPOL7378 and the IBC Code Not applicable. Transport Mathemation: Disposal on the ISC Code Not applicable. Transport Mole, IATA Not applicable Environmental hazards: Not applicable. Transport in bulk according to Annex II of MARPOL7378 and the IBC Code Not applicable. Transport ADM, MDG, IATA - Not applicable. Transport in bulk according to Annex II of MARPOL7378 and the IBC Code Not applicable. Transport Additional information: DOT Merine Pollutant (DOT): No Mult Mode Regulation*: - 5 Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture GMS label elements Not applicable Hazard pictograms Not applic	Bioaccumulative potential No further relevant information available.					
General notes:	Mobility in soil No further relevant information available. Additional ecological information:					
Avoid transfer into the environment.       Results of PBT and VPB assessment         PBT: Not applicable.       Other adverse effects No further relevant information available.         3 Disposal considerations       Waste treatment methods         Recommendation Consult state, local or national regulations to ensure proper disposal.       Uncleaned packagings:         Uncleaned packagings:       Recommendation Consult state, local or national regulations.         4 Transport information       UN-Number         DOT, ADN, IMDG, IATA       Not applicable         UN proper shipping name       Not applicable         DOT, ADN, IMDG, IATA       Not applicable         DOT, MDR, ADN, IMDG, IATA       Not applicable         Packing group       Not applicable         Packing group       Not applicable         Packing group       Not applicable         Transport in bulk according to Annex II of MARPOLT3/78 and the IBC Code Not applicable.       Transport Additional information:         DOT       Marine Pollutant (DOT):       No         UN "Model Regulation":       -         56       Regulatory information         Safety, health and environmental reg	General notes:	course or sources sustem				
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VP-VB: Not applicable.         3Disposal 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.         4 Transport information         UN-Number         DOT, ADN, MIDG, IATA         Not applicable         UN proper shipping name         DOT, ADN, MIDG, IATA         Not applicable         UN proper shipping name         DOT, ADN, MIDG, IATA         Not applicable         DOT, ADN, MIDG, IATA         DOT, MIDR, IATA         Not applicable         Packing group         DOT, MIDR, IATA         Not applicable         Environmental hazards:         Not applicable         Environmental hazards:         Not applicable.         Special precautions for user         Transport/Additional information:         DOT         DOT         Marine Pollutant (DOT):         No         Marine Pollutant (DOT):         Not         Marine Pollutant (DOT):         Not applicable         Marine Pollutant (DOT):	Results of PBT and vPvB assessment PBT: Not applicable.					
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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.         4       Transport information         UN-Number DOT, ADN, IMDG, IATA       Not applicable         UN proper shipping name DOT, ADN, MIDG, IATA       Not applicable         DOT, ADR, ADN, IMDG, IATA       Not applicable         Transport hazard class(es)       DOT, ADR, ADN, IMDG, IATA         DOT, ADR, ADN, IMDG, IATA       Not applicable         Packing group       Not applicable         POT, IMMG, IATA       Not applicable         Packing group       Not applicable         DOT, MIDR, IATA       Not applicable         Packing group       Not applicable         DOT, IMMG, IATA       Not applicable         Packing group       Not applicable         DOT, IMMG, IATA       Not applicable         Feeduations for user       Not applicable.         Transport in bulk according to Annex II of MARPOLT3778 and the IBC Code Not applicable.       Transport/Additional information:         DOT       Marine Pollutant (DOT):       No         UN "Model Regulation":       -       -         5       Regulatory information       -         Safety, health and environmental regulations/legis						
Recommendation Consult state, local or national regulations to ensure proper disposal.         Uncleaned packagings:         Recommendation: Disposal must be made according to official regulations.         4 Transport information         UN-Humber         DOT, ADN, IMDG, IATA         Not applicable         UN, IMDG, IATA         Not applicable         DOT, ADN, IMDG, IATA         Not applicable         Transport hazard class(es)         DOT, ADN, IMDG, IATA         Not applicable         Packing group         DOT, ADN, IMDG, IATA         Not applicable         Packing group         DOT, IMIG, IATA         Not applicable         Packing group         DOT, IMIG, IATA         Not applicable         Farvironmental hazards:         Not applicable.         Special precautions for user         Transport in bulk according to Annex II of MARPOLT3/78 and the IBC Code Not applicable.         Transport/Additional information:         DOT         DOT         Marine Pollutant (DOT):         No         UN "Model Regulation":         -         5 Regulatory information         Safety, health and environme	13 Disposal considerations					
Uncleaned packagings:		disposal				
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UN-Number DOT, ADN, IMDG, IATA Not applicable UN proper shipping name DOT, ADN, IMDG, IATA Not applicable Transport hazard class(es) DOT, ADN, ADN, IMDG, IATA Class Not applicable Packing group DOT, IMDG, IATA Not applicable Environmental hazards: Not applicable Environmental hazards: Not applicable Environmental hazards: Not applicable. Special precautions for user Not applicable. Transport in bulk according to Annex II of MARPOLT3/78 and the IBC Code Not applicable. Transport/Additional information: DOT Marine Pollutant (DOT): No UN "Model Regulation": - 55 Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements Not applicable Signal word Not applicable Signal word Not applicable Signal word Not applicable National regulations.	Recommendation. Disposal must be made according to omcial regulations.					
DOT, ADN, IMDG, IATA       Not applicable         UN proper shipping name       Not applicable         DOT, ADN, IMDG, IATA       Not applicable         Transport hazard class(es)       DOT, ADN, IMDG, IATA         Class       Not applicable         Packing group       Not applicable         Packing group       Not applicable         Packing group       Not applicable         DOT, ADN, IMDG, IATA       Not applicable         Packing group       Not applicable         Special precautions for user       Not applicable.         Special precautions for user       Not applicable.         Transport/Additional information:       DOT         DOT       Marine Pollutant (DOT):       No         UN "Model Regulation":       -         5       Regulatory information         Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements Not applicable         Signal word Not applicable       Signal word Not applicable         Signal word Not applicable       Signal word Not applicable         Signal word Not applicable       Transport Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted	14 Transport information					
UN proper shipping name DOT, ADN, IMDG, IATA Transport hazard class(es) DOT, ADR, ADN, IMDG, IATA Class Not applicable Packing group DOT, IMDG, IATA Class Not applicable Packing group DOT, IMDG, IATA Not applicable Environmental hazards: Not applicable Environmental hazards: Not applicable. Special precautions for user Not applicable. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. Transport/Additional information: DOT Marine Pollutant (DOT): No UN "Model Regulation": - 55 Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements Not applicable Signal word Not applicable Signal word Not applicable Signal word Not applicable 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		Not applicable				
Transport hazard class(es)         DOT, ADR, ADN, IMDG, IATA         Class       Not applicable         Packing group       Not applicable         DOT, IMDG, IATA       Not applicable         Environmental hazards:       Not applicable.         Special precautions for user       Not applicable.         Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.       Transport/Additional information:         DOT       Marine Pollutant (DOT):       No         UN "Model Regulation":       -         5 Regulatory information       -         Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements Not applicable       -         Signal word Not applicable       -         Hazard statements Not applicable       -         Signal word Not applicable       -         Marional regulations       -         This product is not lised in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted	UN proper shipping name					
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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	Hazard statements Not applicable					
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	National regulations	bstances Control Act Chemical Substance Inventory Use of this pro	oduct is restricted			
product must not be used for commercial purposes or in formulations for commercial purposes	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. This product is not listed on the Canadian Domestic Substances List (DSL) or the Canadian Non-Domestic Substances List (NDSL).						
SAR'A Section 313 (specific toxic chemical listings) Substance is not lísted.	SARA Section 313 (specific toxic chemical listings) Substance is not listed.					
Prop 65 - Chemicals known to cause cancer Substance is not listed.	Prop 65 - Chemicals known to cause cancer Substance is not listed.					
Prop 65 - Developmental toxicity Substance is not listed. Prop 65 - Developmental toxicity, female 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 individuals	Prop 65 - Developmental toxicity, male Substance is not listed.	iduals				
Other regulations, limitations and prohibitive regulations	Other regulations, limitations and prohibitive regulations	inne (FC) Ne 1007/2006 Substance is not listed				
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	The conditions of restrictions according to Article 67 and Annex XVII of th	e Regulation (EC) No 1907/2006. Substance is not listed.	, placing on the			
market and use must be observed. Substance is not listed.	market and use must be observed.		-			
Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed.	Annex XIV of the REACH Regulations (reguiring Authorisation for use) Su	bstance is not listed.				
Chemical safety assessment: A Chemical Safety Assessment has not been carried out.	Chemical Salety assessment. A Chemical Salety Assessment has not been c	ameu oul.				

## Product name: trans,trans-4-n-Butyl-4'-(3,4-difluorophenyl)bicyclohexyl

(Contd. of page 3)

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 11/24/2015 / - Abbreviations and accoryms: 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 CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LC50: Lethal concentration, 50 percent LD50: Lethal concentration, 50 percent LD50: Lethal concentration 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