according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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Carbazole ROTI®Calipure 243-247 °C Melting point standard

article number: **9752** Version: **5.0 en** Replaces version of: 2022-05-16 Version: (4)

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Identification of the substance

Article number

Registration number (REACH)

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It is not required to list the identified uses because the substance is not subject to registration according to REACH (< 1 t/a).

EC number CAS number

86-74-8

201-696-0

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses:

Laboratory chemical Laboratory and analytical use

Uses advised against:

Do not use for private purposes (household). Food, drink and animal feedingstuffs.

1.3 Details of the supplier of the safety data sheet

Carl Roth GmbH + Co. KG Schoemperlenstr. 3-5 D-76185 Karlsruhe Germany

Telephone:+49 (0) 721 - 56 06 0 **Telefax:** +49 (0) 721 - 56 06 149 **e-mail:** sicherheit@carlroth.de **Website:** www.carlroth.de

Competent person responsible for the safety data Department Health, Safety and Environment sheet:

e-mail (competent person):

sicherheit@carlroth.de

1.4 Emergency telephone number

Name	Street	Postal code/city	Telephone	Website
National Poisons Information Centre Beaumont Hospital	Beaumont Road	Dublin 9	+353 1 809 2166	https:// www.poisons.ie/

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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Classification according to Regulation (EC) No 1272/2008 (CLP)

Section	Hazard class	Cat- egory	Hazard class and category	Hazard statement
4.1A	Hazardous to the aquatic environment - acute hazard	1	Aquatic Acute 1	H400
4.1C	Hazardous to the aquatic environment - chronic hazard	1	Aquatic Chronic 1	H410

For full text of abbreviations: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Pictograms GHS09 Hazard statements H410 Very toxic to aquatic life with long lasting effects Precautionary statements Precautionary statements - prevention P273 Avoid release to the environment Labeling of packages where the contents do not exceed 125 ml Signal word: Warning Symbol(s)		Signal word	Warning
Hazard statements H410 Very toxic to aquatic life with long lasting effects H410 Very toxic to aquatic life with long lasting effects Precautionary statements Precautionary statements P273 Avoid release to the environment Labelling of packages where the contents do not exceed 125 ml Signal word: Warning Symbol(s) Symbol(s) Q23 Other hazards Endocrine disrupting properties Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%. SECTION 3: Composition/information on ingredients 3.1 Substances		Pictograms	
H410 Very toxic to aquatic life with long lasting effects Precautionary statements Prevention P273 Avoid release to the environment Labelling of packages where the contents do not exceed 125 ml Signal word: Warning Symbol(s) ✓ ✓ State disrupting properties Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%. SECTION 3: Composition/information on ingredients 3.1		GHS09	¥_2
Precautionary statements Precautionary statements - prevention P273 Avoid release to the environment Labelling of packages where the contents do not exceed 125 ml Signal word: Warning Symbol(s) ✓✓ Labelling of packages where the contents do not exceed 125 ml Signal word: Warning Symbol(s) ✓✓ Labelling of packages Sources State of the packages Substances		Hazard stateme	nts
Precautionary statements - prevention P273 Avoid release to the environment Labelling of packages where the contents do not exceed 125 ml Signal word: Warning Symbol(s) ✓✓ 2.3 Other hazards Endocrine disrupting properties Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%. SECTION 3: Composition/information on ingredients 3.1 Substances		H410	Very toxic to aquatic life with long lasting effects
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Signal word: Warning Symbol(s) Image: Symbol symbol Image: Symbol symbol symbol Image: Symbol symbol symbol symbol Image: Symbol		P273	Avoid release to the environment
 2.3 Other hazards Endocrine disrupting properties Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%. SECTION 3: Composition/information on ingredients 3.1 Substances 			s where the contents do not exceed 125 ml
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 Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%. SECTION 3: Composition/information on ingredients 3.1 Substances 	2.3		
3.1 Substances		-	
	SEC	TION 3: Comp	osition/information on ingredients
	3.1	Substances	
Name of substance Carbazole		Name of substan	ce Carbazole
Molecular formula C ₁₂ H ₉ N		Molecular formul	C ₁₂ H ₉ N
Molar mass 167,2 ^g / _{mol}		Molar mass	167,2 ^g / _{mol}
		CAS No	86-74-8
		CAS No	86-74-8

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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EC No

201-696-0

SECTION 4: First aid measures

4.1 Description of first aid measures



General notes

Take off contaminated clothing.

Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

Following skin contact

Rinse skin with water/shower.

Following eye contact

Rinse cautiously with water for several minutes.

Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed none

SECTION 5: Firefighting measures

5.1 Extinguishing media



Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings! water, foam, dry extinguishing powder, ABC-powder

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Combustible.

Hazardous combustion products

In case of fire may be liberated: Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO₂)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Do not allow firefighting water to enter drains or water courses. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures



For non-emergency personnel

Avoid contact with skin, eyes and clothes. Do not breathe dust.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains. Take up mechanically.

Advice on how to clean up a spill

Take up mechanically. Control of dust.

Other information relating to spills and releases

Place in appropriate containers for disposal.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Provision of sufficient ventilation. Avoid dust formation.

Measures to prevent fire as well as aerosol and dust generation

Removal of dust deposits.

Measures to protect the environment

Avoid release to the environment.

Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Store in a dry place.

Incompatible substances or mixtures

Observe hints for combined storage.

Consideration of other advice:

Ventilation requirements

Use local and general ventilation.

Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Coun try	Name of agent	CAS No	Identifi- er	TWA [mg/ m³]	STEL [mg/ m³]	Ceil- ing-C [mg/ m ³]	Nota- tion	Source
IE	dusts, non-specific		OELV	10			i	S.I. No. 619 of 2001
IE	dusts, non-specific		OELV	4			r	S.I. No. 619 of 2001

Notation

 Ceiling-C
 Ceiling value is a limit value above which exposure should not occur

 i
 Inhalable fraction

 r
 Respirable fraction

 STEL
 Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15minute period (unless otherwise specified)

 TWA
 Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

8.2 Exposure controls

Individual protection measures (personal protective equipment)

Eye/face protection



Use safety goggle with side protection.

Skin protection



hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a consider-able reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

• type of material

NBR (Nitrile rubber)

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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material thickness

- >0,11 mm
- breakthrough times of the glove material

>480 minutes (permeation: level 6)

• other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Respiratory protection



Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). P1 (filters at least 80 % of airborne particles, colour code: White).

Environmental exposure controls

Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	solid
Colour	not determined
Odour	odourless
Melting point/freezing point	245 °C at 1.013 hPa (ECHA)
Boiling point or initial boiling point and boiling range	355 °C at 1.013 hPa (ECHA)
Flammability	this material is combustible, but will not ignite readily
Lower and upper explosion limit	not determined
Flash point	188 °C at 1.013 hPa (ECHA)
Auto-ignition temperature	>600 °C at 1.013 hPa (ECHA) (relative self-igni- tion temperature for solids)
Decomposition temperature	not relevant
pH (value)	not applicable
Kinematic viscosity	not relevant
Solubility(ies)	
Water solubility	0,91 ^{mg} / _l at 25 °C (ECHA)
Partition coefficient	
Partition coefficient n-octanol/water (log value):	3,84 (pH value: 7, 22 °C) (ECHA)
Vapour pressure	0 Pa at 25 °C

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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Density and/or relative density	
Density	1,1 ^g / _{cm³} at 18 °C (ECHA)
Relative vapour density	Information on this property is not available.
Bulk density	~600 ^{kg} / _{m³}
Particle characteristics	No data available.
Other safety parameters	
Oxidising properties	none
Other information	
Information with regard to physical hazard classes:	hazard classes acc. to GHS (physical hazards): not relevant
Other safety characteristics:	
Temperature class (EU, acc. to ATEX)	T1 Maximum permissible surface temperature on the equipment: 450°C

SECTION 10: Stability and reactivity

10.1 Reactivity

9.2

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

Violent reaction with: strong oxidiser, Alkalis

10.4 Conditions to avoid

Keep away from heat.

10.5 Incompatible materials

There is no additional information.

10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic.

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics

• If swallowed

Data are not available.

• If in eyes

essentially non-irritating

• If inhaled

Data are not available.

• If on skin

non-irritant

Other information

none

11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\ge 0,1\%$.

11.3 Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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Aquatic toxicity (acute)				
Endpoint	Value	Species	Source	Exposure time
LC50	0,93 ^{mg} / _l	Pimephales promelas	ECOTOX Database	96 h
EC50	2,3 – 4,9 ^{mg} / _l	daphnia magna	ECOTOX Database	48 h

12.2 Persistence and degradability

Theoretical Oxygen Demand (without nitrification): 2,583 $^{\rm mg}/_{\rm mg}$ Theoretical Oxygen Demand (with nitrification): 2,966 $^{\rm mg}/_{\rm mg}$ Theoretical Carbon Dioxide: 3,158 $^{\rm mg}/_{\rm mg}$

Biodegradation

Not readily biodegradable.

12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

n-octanol/water (log KOW)	3,84 (pH value: 7, 22 °C) (ECHA)
BCF	69 – 241 (ECHA)

12.4 Mobility in soil

Henry's law constant	0,009 ^{Pa m³} / _{mol} at 25 °C (ECHA)
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12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\ge 0,1\%$.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Properties of waste which render it hazardous HP 14 ecotoxic

13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions. Non-contaminated packages may be recycled.

SEC	SECTION 14: Transport information			
14.1	UN number or ID number			
	ADRRID	UN 3077		
	IMDG-Code	UN 3077		
	ICAO-TI	UN 3077		
14.2	UN proper shipping name			
	ADRRID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.		
	IMDG-Code	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.		
	ICAO-TI	Environmentally hazardous substance, solid, n.o.s.		
	Technical name	Carbazole		
14.3	Transport hazard class(es)			
	ADRRID	9		
	IMDG-Code	9		
	ICAO-TI	9		
14.4	Packing group			
	ADRRID	III		
	IMDG-Code	III		
	ICAO-TI	III		
14.5	Environmental hazards	hazardous to the aquatic environment		
14.6	Special precautions for user			
	Provisions for dangerous goods (ADR) should be complied within the premises.			

14.7 Maritime transport in bulk according to IMO instruments The cargo is not intended to be carried in bulk.

14.8 Information for each of the UN Model Regulations

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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Agreement concerning the International Carri information	age of Dangerous Goods by Road (ADR)Additional
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Particulars in the transport document	UN3077, ENVIRONMENTALLY HAZARDOUS SUB- STANCE, SOLID, N.O.S., (Carbazole), 9, III, (-)
Classification code	M7
Danger label(s)	9, "Fish and tree"
Environmental hazards	YES (hazardous to the aquatic environment)
Special provisions (SP)	274, 335, 375, 601
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
Transport category (TC)	3
Tunnel restriction code (TRC)	-
Hazard identification No	90
Regulations concerning the International Carr information	iage of Dangerous Goods by Rail (RID)Additional
Classification code	M7
Danger label(s)	9, "Fish and tree"
Environmental hazards	Yes Hazardous to water
Special provisions (SP)	274, 335, 375, 601
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
Transport category (TC)	3
Hazard identification No	90
International Maritime Dangerous Goods Code	e (IMDG) - Additional information
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Particulars in the shipper's declaration	UN3077, ENVIRONMENTALLY HAZARDOUS SUB- STANCE, SOLID, N.O.S., (Carbazole), 9, III
Marine pollutant	YES (hazardous to the aquatic environment), (Carbazole)
Danger label(s)	9, "Fish and tree"
Special provisions (SP)	274, 335, 966, 967, 969

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
EmS	F-A, S-F
Stowage category	A
International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information
Proper shipping name	Environmentally hazardous substance, solid, n.o.s.
Particulars in the shipper's declaration	UN3077, Environmentally hazardous substance, solid, n.o.s., (Carbazole), 9, III
Environmental hazards	Yes (hazardous to the aquatic environment)
Danger label(s)	9, "Fish and tree"
Special provisions (SP)	A97, A158, A179, A197, A215
Excepted quantities (EQ)	E1
Limited quantities (LQ)	30 kg

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

not listed

List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list Not listed.

Seveso Directive

2012/18/EU (Seveso III)				
Νο	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the ap- plication of lower and upper-tier re- quirements		Notes
E1	environmental hazards (hazardous to the aquatic en- vironment, cat. 1)	100	200	56)

Notation

56) Hazardous to the Aquatic Environment in category Acute 1 or Chronic 1

Deco-Paint Directive

VOC content	0 %
VOC content	0 ^g / _l

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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Industrial Emissions Directive (IED)		
VOC content	0 %	
VOC content	0 ^g / _l	

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

not listed

Regulation concerning the establishment of a European Pollutant Release and Transfer **Register (PRTR)**

not listed

Water Framework Directive (WFD)

List of pollutants (WFD)					
Name of substance	Name acc. to inventory	CAS No	Listed in	Remarks	
Carbazole	polycyclic aromatic hydrocarbons (PAH)		b)	HAZ (7)	
Carbazole	Substances and preparations, or the breakdown products of such, which have been proved to pos- sess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine- related functions in or via the aquatic environment		a)		
Carbazole	Persistent hydrocarbons and per- sistent and bioaccumulable or- ganic toxic substances		a)		

Legend

Including benzo(a)pyrene (CAS 50-32-8, EU 200-028-5), benzo(b)fluoranthene (CAS 205-99-2, EU 205-911-9), benzo(g,h,i)perylene (CAS 191-24-2, EU 205-883-8), benzo(k)fluoranthene (CAS 207-08-9, EU 205-916-6), indeno(1,2,3-cd)pyrene (CAS 193-39-5, EU 205-893-2) and excluding anthracene, fluoranthene and naphthalene, which are listed separately (7)

Indicative list of the main pollutants List of priority substances in the field of water policy a) b) HAZ

Identified as priority hazardous substance

Regulation on the marketing and use of explosives precursors

not listed

Regulation on drug precursors

not listed

Regulation on substances that deplete the ozone layer (ODS)

not listed

Regulation concerning the export and import of hazardous chemicals (PIC)

not listed

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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Regulation on persistent organic pollutants (POP)						
Name of substance	CAS No	Wt%	Type of registra- tion	Re- marks	Exemp- tions	Concen- tration limit
Carbazole	130498-29-2	100	Annex III - B	A3B-ad- 01		

Legend

A3B-ad-01 For the purpose of emission inventories, the following four compound indicators shall be used: benzo(a)pyrene, benzo(b) fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. Annex III - B List of substances subject to release reduction provisions

Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

National inventories

Country	Inventory	Status
AU	AIIC	substance is listed
CA	DSL	substance is listed
CN	IECSC	substance is listed
EU	ECSI	substance is listed
EU	REACH Reg.	substance is listed
JP	CSCL-ENCS	substance is listed
KR	KECI	substance is listed
MX	INSQ	substance is listed
NZ	NZIoC	substance is listed
PH	PICCS	substance is listed
TW	TCSI	substance is listed
US	TSCA	substance is listed (ACTIVE)
VN	NCI	substance is listed

Legend

AIICAustralian Inventory of Industrial ChemicalsCSCL-ENCSList of Existing and New Chemical Substances (CSCL-ENCS)DSLDomestic Substances List (DSL)ECSIEC Substance Inventory (EINECS, ELINCS, NLP)IECSCInventory of Existing Chemical Substances Produced or Imported in ChinaINSQNational Inventory of Chemical SubstancesKECIKorea Existing Chemicals InventoryNCINational Chemical InventoryNZIoCNew Zealand Inventory of Chemicals and Chemical Substances (PICCS)REACH Reg.REACH registered substancesTCSITaiwan Chemical Substance InventoryTSCAToxic Substance Control Act

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



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SECTION 16: Other information

Indication of changes (revised safety data sheet)

Costion			Cofety
Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
2.3	Results of PBT and vPvB assessment: According to the results of its assessment, this substance is not a PBT or a vPvB.		yes
2.3		Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.	yes
15.1	VOC content: 0 % 0 ^g / _l	VOC content: 0 %	yes
15.1		VOC content: 0 ^g / _l	yes
15.1		List of pollutants (WFD): change in the listing (table)	yes
15.1	Regulation on persistent organic pollutants (POP): not listed	Regulation on persistent organic pollutants (POP)	yes
15.1		Regulation on persistent organic pollutants (POP): change in the listing (table)	yes
15.1		National inventories: change in the listing (table)	yes

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations	
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concern- ing the International Carriage of Dangerous Goods by Road)	
BCF	Bioconcentration factor	
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)	
Ceiling-C	Ceiling value	
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures	
DGR	Dangerous Goods Regulations (see IATA/DGR)	
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval	
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identi- fier of substances commercially available within the EU (European Union)	
ED	Endocrine disruptor	
EINECS	European Inventory of Existing Commercial Chemical Substances	
ELINCS	European List of Notified Chemical Substances	
EmS	Emergency Schedule	
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Na- tions	

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Carbazole ROTI®Calipure 243-247 °C Melting point standard

article number: 9752

Abbr.	Descriptions of used abbreviations
ΙΑΤΑ	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regula- tions concerning the International carriage of Dangerous goods by Rail)
S.I. No. 619 of 2001	Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001
STEL	Short-term exposure limit
SVHC	Substance of Very High Concern
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.