

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

1.1. Product identifier

Product form	: Substance
Chemical Substance Name	: Poly(dicyclopentadiene-co-p-cresol)
Substance name	: Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene
Trade name	: antioxidant ky616
Registration number	: 01-2119496062-39-****

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

1.2.1. Relevant identified uses

Use of the substance/mixture : For more detail information, please refer to Annex

1.2.2. Uses advised against

Restrictions on use : No information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Reproductive toxicity, Category 2 H361

Hazardous to the aquatic environment — Chronic Hazard, Category 4 H413

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No information available

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS08

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H361 - Suspected of damaging fertility or the unborn child.
H413 - May cause long lasting harmful effects to aquatic life.

Precautionary statements (CLP) :

P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene	(CAS-No.) 68610-51-5 (EC-No.) 271-867-2	100	Repr. 2, H361 Aquatic Chronic 4, H413

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable



Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene

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according to Regulation (EU) 2015/830

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If symptoms persist, call a physician.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Immediately flush eyes thoroughly with water for at least 15 minutes. If symptoms persist call a doctor.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : Suspected of damaging fertility or the unborn child.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Dry powder. Foam. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	: Water

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Thermal decomposition may produce : Carbon oxides (CO, CO ₂). Combustible dusts.
Explosion hazard	: Can form explosive mixtures with air.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area. Do not breathe dust. Remove all sources of ignition. Avoid contact with skin and eyes.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

Avoid release to the environment. Avoid creating or spreading dust.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Notify authorities if product enters sewers or public waters. Sweep or shovel spills into appropriate container for disposal.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid creating or spreading dust. Remove all sources of ignition. Take precautionary measures against static discharge. Keep container tightly closed.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store locked up. Store in a well-ventilated place. Keep cool.
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7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene

DNEL/DMEL (Workers)

Long-term - local effects, dermal	0.42 mg/kg bw/day
Long-term - systemic effects, inhalation	0.29 mg/m ³

DNEL/DMEL (General population)

Long-term - systemic effects, oral	0.04 mg/kg bw/day
Long-term - systemic effects, inhalation	0.07 mg/m ³
Long-term - systemic effects, dermal	0.21 mg/kg bw/day

PNEC (Water)

PNEC aqua (freshwater)	0.01 mg/l
PNEC aqua (marine water)	0.002 mg/l

PNEC (Sediment)

PNEC sediment (freshwater)	426.26 mg/kg dwt
PNEC sediment (marine water)	85.25 mg/kg dwt

PNEC (Soil)

PNEC soil	85.16 mg/kg dwt
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PNEC (Oral)

PNEC oral (secondary poisoning)	1.7 mg/kg food
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PNEC (STP)

PNEC sewage treatment plant	100 mg/l
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8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Protective gloves. PVC gloves. Plastic materials

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Off-white
Odour	: No data available.
Odour threshold	: No data available
pH	: No data available
pH solution	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: 118 °C at 101.3 kPa
Freezing point	: No data available



Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene

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Boiling point	: 320 °C at 101.3 kPa
Flash point	: No data available
Critical temperature	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not flammable
Vapour pressure	: 0 Pa at 25°C
Critical pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.074 at 20°C
Relative density of saturated gas/air mixture	: No data available
Density	: No data available
Relative gas density	: No data available
Solubility	: Water: 0.01 mg/l
Log Pow	: 7.93
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive.
Oxidising properties	: Non oxidizing.
Explosive limits	: No data available
Lower explosive limit (LEL)	: No data available
Upper explosive limit (UEL)	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene (68610-51-5)

LD50 oral rat	5000mg/kg bw
LD50 dermal rabbit	2000mg/kg bw
LC50 inhalation rat (mg/l)	no study available

Skin corrosion/irritation	: Not classified
	pH: No data available
	no adverse effect observed (not irritating)
Serious eye damage/irritation	: Not classified
	pH: No data available
	no adverse effect observed (not irritating)



Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene

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Respiratory or skin sensitisation	: Not classified Skin sensitisation : no adverse effect observed (not sensitising) Respiratory sensitisation : no study available
Germ cell mutagenicity	: Not classified (genetic toxicity in vitro): Genetic toxicity: no adverse effect observed (negative) (genetic toxicity in vivo): Genetic toxicity: no study available
Carcinogenicity	: Not classified
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: May cause long lasting harmful effects to aquatic life.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: May cause long lasting harmful effects to aquatic life.

Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene (68610-51-5)

LC50 for freshwater fish	0.2 mg/l
EC10/LC10 or NOEC for freshwater fish	1mg/L
EC50/LC50 for freshwater invertebrates	0.2mg/L
EC10/LC10 or NOEC for freshwater invertebrates	1mg/L
EC50/LC50 for freshwater algae	0.2mg/L
EC10/LC10 or NOEC for freshwater algae	0.2mg/L
EC50/LC50 for aquatic micro-organisms	150.9mg/L
EC10/LC10 or NOEC for aquatic micro-organisms	150.9mg/L

12.2. Persistence and degradability

Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene

Persistence and degradability	The substance is not readily biodegradable nor inherently biodegradable.
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12.3. Bioaccumulative potential

Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene

Log Pow	7.93
Log Kow	No data available
BCF	100L/kg ww
Bioaccumulative potential	The substance has limited bioaccumulation potential.

12.4. Mobility in soil

Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene

Ecology - soil	No information available.
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12.5. Results of PBT and vPvB assessment

Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

Other adverse effects	: No information available.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
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SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN



Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene

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ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene is not on the REACH Candidate List

Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene is not on the REACH Annex XIV List

Directive 2012/18/EU (SEVESO III)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

A chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : ECHA reference.

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

Full text of H- and EUH-statements:

H361	Suspected of damaging fertility or the unborn child.
H413	May cause long lasting harmful effects to aquatic life.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product