



BAEROSTAB ZE 603

Version 1.0

Revision Date 24.08.2015

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : **BAEROSTAB ZE 603**
Other means of Identification : **None**

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

Use of the Substance/Mixture : Manufacture of plastics products
Polymer additive
Stabilizer
Restrictions on Use : None known

1.3 Details of the supplier of the safety data sheet

Company : Baerlocher Production USA LLC
5890 Highland Ridge Drive
Cincinnati, OH 45232
Telephone : Day 330-602-1528, 330-602-1531 or -1530
Night 513-207-1620 or 513-604-2327
E-mail address : Hotline.PS@baerlocher.com
Responsible/issuing person : Product Safety Department

1.4 Emergency telephone number (0 - 24 h)

Tel.: 800-424-9300 USA or 703-527-3887

2. Hazards identification

2.1 Classification of the substance or mixture

Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Chronic aquatic toxicity, Category 2	H411: Toxic to aquatic life with long lasting effects.
Sensitising	R43: May cause sensitisation by skin contact.
Irritant	R36/38: Irritating to eyes and skin.
Dangerous for the environment	R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Hazard pictograms :  

Signal word : Warning



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Hazard statements	: H315 H317 H319 H411	Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.
Precautionary statements	: Prevention: P261 P273 P280 P280 Response: P333 + P313 P337 + P313	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Avoid release to the environment. Wear eye protection/ face protection. Wear protective gloves. If skin irritation or rash occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention.

2.3 Other hazards

The product is combustible.
May produce an allergic reaction.

3. Composition/information on ingredients

3.2 Mixtures

Chemical nature : Preparation

Hazardous components

Chemical Name	CAS-No.	Concentration [%]
Epoxy resin	*Trade Secret	> 50*
2,6-di-tert-butyl-p-cresol	128-37-0	< 10*
Dibenzoyl methane	120-46-7	< 10*

*Trade Secret – The specific chemical identity and/or exact percentage of composition has been withheld as a trade secret.

4. First aid measures

4.1 Description of first aid measures

- General advice : Remove and wash contaminated clothing before re-use.
- If inhaled : Move to fresh air.
- In case of skin contact : Wash off with soap and plenty of water.
Take off contaminated clothing and shoes immediately.



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In case of eye contact : Rinse with plenty of water.

If swallowed : Consult a doctor and show this safety datasheet.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water spray
Foam
Carbon dioxide (CO₂)
Dry chemical
Sand

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Smoke and fumes, toxic.

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Remove all sources of ignition.
Ensure adequate ventilation.
Avoid contact with skin and eyes.
Use personal protective equipment.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.



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6.4 Reference to other sections

For personal protection see section 8.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Take precautionary measures against static discharges.
Keep away from sources of ignition - No smoking.
Provide sufficient air exchange and/or exhaust in work rooms.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store at room temperature in the original container.
Keep container tightly closed in a dry and well-ventilated place.

Further information on storage conditions : Handle in accordance with good industrial hygiene and safety practice.

German storage class : 10 Combustible liquids

7.3 Specific end use(s)

: Consult the technical guidelines for the use of this substance/mixture.



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8. Exposure controls/personal protection

8.1 Control parameters

Substance	CAS No.	Regulatory Limits			Recommended Limits	
		OSHA PEL		Cal/OSHA PEL	NIOSH REL	ACGIH TLV
		ppm	mg/m ³	8-hour TWA (ST) STEL (C) Ceiling	Up to 10-hour TWA (ST) STEL (C) Ceiling	8-hour TWA (ST) STEL (C) Ceiling
2,6-di-tert-Butyl-p-cresol	128-37-0		10		10 mg/m ³	IHL: 2 mg/m ³ (TLV)
Particulates Not Otherwise Regulated (PNOR) Inhalable Respirable fraction			5	5 mg/m ³		10 mg/m ³ 3 mg/m ³

8.2 Exposure controls

Engineering measures

Local exhaust

Personal protective equipment

- Respiratory protection : In case of insufficient ventilation:
Protective mask against solvent vapours (A2 Filter)
- Hand protection : protective gloves acc. to EN 374, e.g. neoprene, thickness:
min. 0,7 mm
- Eye protection : Safety glasses
- Skin and body protection : Long sleeved clothing
Rubber apron
- Hygiene measures : When using do not eat or drink.
Do not smoke.
Wash hands before breaks and at the end of workday.
Shower or bathe at the end of working.
Keep working clothes separately.



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Protective measures : antistatic shoes

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : colourless

Odour : characteristic

pH : no data available

Boiling point/boiling range : > 200 °C, Value refers to the solvent.

Flash point : > 100 °C

Lower explosion limit : no data available

Upper explosion limit : no data available

Vapour pressure : < 0,04 hPa, 25 °C, Value refers to the solvent.

Density : no data available

Water solubility : slightly soluble

Partition coefficient: n-octanol/water : no data available

Auto-ignition temperature : no data available

Ignition temperature : ca. 460 °C, Value refers to the solvent.

Viscosity, dynamic : no data available

Viscosity, kinematic : no data available

Odor Threshold : No data available

Melting/Freezing Point : No data available

Evaporation Rate : No data available

Flammability : No data available

Vapor Density : No data available

Decomposition Temperature : No data available



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9.2 Other information

No data available

10. Stability and reactivity

10.1 Reactivity

Stable at normal ambient temperature and pressure.

10.2 Chemical stability

No decomposition if stored normally.

10.3 Possibility of hazardous reactions

Hazardous reactions : Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Sources of ignition

10.5 Incompatible materials

Materials to avoid : Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products : No decomposition if used as directed.

11. Toxicological information

11.1 Information on toxicological effects

Components:

Epoxy resin :

- Acute oral toxicity : LD50: > 2.000 mg/kg, rat, OECD Test Guideline 420, GLP: yes, Based on available data, the classification criteria are not met.
- Acute inhalation toxicity : LC50: rat, Limit Test, An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration., Based on available data, the classification criteria are not met.
- Acute dermal toxicity : LD50: > 2.000 mg/kg, rat, OECD Test Guideline 402, GLP: yes, Based on available data, the classification criteria are not met.
- Skin corrosion/irritation : rabbit, Result: slight irritation, OECD Test Guideline 404, 4 h, GLP: yes, Classification, Labelling according to EC Directives, Regulation (EC) No 1272/2008, Annex VI, Table 3.1
- Serious eye damage/eye irritation : rabbit, Result: not irritating, OECD Test Guideline 405, GLP: yes, Classification, Labelling according to EC Directives,



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	Regulation (EC) No 1272/2008, Annex VI, Table 3.1
Respiratory or skin sensitisation	: Skin sensitisation
	: LLNA, mouse, Result: Sensitising, OECD Test Guideline 429, GLP: yes
	: Respiratory sensitisation, Not classified due to lack of data.
Germ cell mutagenicity	
Genotoxicity in vitro	: Mutagenicity (Salmonella typhimurium - reverse mutation assay), Bacteria, Result: negative, standardised international/national methodology, GLP: yes
	: In vitro gene mutation study in mammalian cells, Result: Positive results were obtained in some in vitro tests.
	: Chromosome aberration test in vitro, Result: Positive results were obtained in some in vitro tests.
Genotoxicity in vivo	: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis), mouse, Result: negative
	: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis), hamster, Result: negative
	: In vivo micronucleus test, mouse, Result: negative
	: In vivo micronucleus test, hamster, Result: negative
	: Genotoxicity in vivo, mouse, Result: negative, Based on available data, the classification criteria are not met.
Carcinogenicity	: rat / mouse, Dermal, OECD Test Guideline 453, GLP: yes
	: rat, Oral, OECD Test Guideline 453, GLP: yes, Based on available data, the classification criteria are not met.
Reproductive toxicity	: Two-generation reproductive toxicity, rat, OECD Test Guideline 416, GLP: yes, Based on available data, the classification criteria are not met.
Teratogenicity	: rat, Oral, OECD Test Guideline 414, GLP: yes
	: rabbit, Dermal, standardised international/national methodology, GLP: yes
	: rabbit, Oral, OECD Test Guideline 414, GLP: yes, Based on available data, the classification criteria are not met.
STOT - single exposure	: Remarks: Based on available data, the classification criteria are not met.
STOT - repeated exposure	: rat, Oral, Exposure time: 90 d, OECD Test Guideline 408, GLP: yes
STOT - repeated exposure	: rat / mouse, Dermal, Exposure time: 90 d, OECD Test Guideline 411, GLP: yes, Based on available data, the classification criteria are not met.



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- Aspiration toxicity : Based on available data, the classification criteria are not met.
- Further information : CMR effects, Carcinogenicity, Mutagenicity, Reproductive toxicity, Hazard assessment, Category 1A, Category 1B, Based on available data, the classification criteria are not met.
: Likely route of exposure, Inhalation, Ingestion, Skin contact
- 2,6-di-tert-butyl-p-cresol :**
- Acute oral toxicity : LD50: > 2.930 mg/kg, rat, OECD Test Guideline 401, GLP: yes, Based on available data, the classification criteria are not met.
- Acute inhalation toxicity : Based on available data, the classification criteria are not met.
- Acute dermal toxicity : LD50: > 2.000 mg/kg, rat, OECD Test Guideline 402, GLP: yes, Based on available data, the classification criteria are not met.
- Skin corrosion/irritation : rabbit, Result: slight irritation, 24 h, Based on available data, the classification criteria are not met.
- Serious eye damage/eye irritation : rabbit, Result: slight irritation, 72 h, Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation : Skin sensitisation
: Patch Test 24 Hrs., Humans, Result: not sensitising, standardised international/national methodology, Based on available data, the classification criteria are not met.
: Respiratory sensitisation, Based on available data, the classification criteria are not met.
- Germ cell mutagenicity
- Genotoxicity in vitro : Mutagenicity (Salmonella typhimurium - reverse mutation assay), Bacteria, Result: negative, GLP: no
: Mutagenicity (in vitro mammalian cytogenetic test), CHO, Result: negative, GLP: no
: In vitro gene mutation study in mammalian cells, mouse lymphoma cells, Result: contradictory, GLP: no
: In vitro gene mutation study in mammalian cells, Liver cells (rat), Result: negative, GLP: no, Based on available data, the classification criteria are not met.
- Genotoxicity in vivo : In vivo micronucleus test, mouse, GLP: no, Result: negative
: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis), rat, Oral, 9 months, GLP: no, Result: negative, Based on available data, the classification criteria are not met.
- Carcinogenicity : rat, Oral, standardised international/national methodology, GLP: yes, Based on available data, the classification criteria



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- are not met.
- Reproductive toxicity : rat, Oral, Test period: 22 months, standardised international/national methodology, GLP: yes, Based on available data, the classification criteria are not met.
- Teratogenicity : rat, Test period: 22 months, Oral, standardised international/national methodology, GLP: yes, Based on available data, the classification criteria are not met.
- STOT - single exposure : Remarks: Based on available data, the classification criteria are not met.
- STOT - repeated exposure : rat, Oral, standardised international/national methodology, GLP: yes, Based on available data, the classification criteria are not met.
- Aspiration toxicity : Based on available data, the classification criteria are not met.
- Further information : CMR effects, Carcinogenicity, Mutagenicity, Reproductive toxicity, Hazard assessment, Category 1A, Category 1B, Based on available data, the classification criteria are not met.
: Likely route of exposure, Inhalation, Ingestion, Skin contact
- Dibenzoyl methane :**
- Acute oral toxicity : LD50: > 2.000 mg/kg, rat, OECD Test Guideline 423, GLP: yes, Based on available data, the classification criteria are not met.
- Acute inhalation toxicity : study scientifically unjustified
- Acute dermal toxicity : LD50: > 2.000 mg/kg, rat, OECD Test Guideline 402, GLP: yes
- Skin corrosion/irritation : in vitro assay, Result: not irritating, OECD Test Guideline 439, GLP: yes, Based on available data, the classification criteria are not met.
- Serious eye damage/eye irritation : rabbit, Result: not irritating, OECD Test Guideline 405, Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation : Skin sensitisation
: LLNA, mouse, Result: Sensitising, OECD Test Guideline 429, GLP: yes
: Respiratory sensitisation
: Not classified due to lack of data.
- Germ cell mutagenicity
- Genotoxicity in vitro : Mutagenicity (Salmonella typhimurium - reverse mutation assay), Bacteria, Result: negative, OECD Test Guideline 471, GLP: yes
: In vitro gene mutation study in mammalian cells, mouse



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	lymphoma cells, Result: positive, OECD Test Guideline 476, GLP: yes
	: Mutagenicity (in vitro mammalian cytogenetic test), CHL, Result: positive, OECD Test Guideline 487, GLP: yes, Based on available data, the classification criteria are not met.
Carcinogenicity	: Not classified due to lack of data.
Reproductive toxicity	: Not classified due to lack of data.
Teratogenicity	: Not classified due to lack of data.
STOT - single exposure	: Remarks: Not classified due to lack of data.
STOT - repeated exposure	: Not classified due to lack of data.
Aspiration toxicity	: Not classified due to lack of data.
Further information	: CMR effects, Carcinogenicity, Mutagenicity, Reproductive toxicity, Hazard assessment, Category 1A, Category 1B, Based on available data, the classification criteria are not met. : Likely route of exposure, Inhalation, Ingestion, Skin contact

11.2 Carcinogenicity

Contains no known or suspected carcinogens listed by IARC, NTP or OSHA at or above reportable quantities.

12. Ecological information

12.1 Toxicity

Components:

Epoxy resin :

Toxicity to fish	: LC50: 1,5 mg/l, 96 h, Oncorhynchus mykiss (rainbow trout), static test, OECD Test Guideline 203, GLP: no : LC50: 1,2 mg/l, 96 h, Oncorhynchus mykiss (rainbow trout), semi-static test, standardised international/national methodology, GLP: no
Toxicity to daphnia and other aquatic invertebrates	: EC50: 1,7 mg/l, 48 h, Daphnia magna (Water flea), static test, OECD Test Guideline 202, GLP: yes
Toxicity to algae	: EC50: 9,4 mg/l, 72 h, Scenedesmus capricornutum (fresh water algae), static test, standardised international/national methodology, GLP: no
Toxicity to bacteria	: IC50: > 100 mg/l, activated sludge, Respiration inhibition
Toxicity to fish (Chronic toxicity)	: study scientifically unjustified



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- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,3 mg/l, 21 d, Daphnia magna (Water flea), semi-static test, OECD Test Guideline 211, GLP: yes
- 2,6-di-tert-butyl-p-cresol :**
- Toxicity to fish : LC0: \geq 0,57 mg/l, 96 h, Danio rerio (zebra fish), semi-static test, Directive 67/548/EEC, Annex V, C.1., GLP: yes
- Toxicity to daphnia and other aquatic invertebrates : NOEC: 0,15 - 0,23 mg/l, 48 h, Daphnia magna (Water flea), static test, OECD Test Guideline 202, GLP: yes
- Toxicity to algae : EC50: $>$ 0,4 mg/l, 72 h, Desmodesmus subspicatus (green algae), static test, Directive 67/548/EEC, Annex V, C.3., GLP: yes
- Toxicity to bacteria : EC50: $>$ 10.000 mg/l, 3 h, activated sludge, Respiration inhibition, standardised international/national methodology, GLP: yes
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC50: 0,39 mg/l, 21 d, Daphnia magna (Water flea), semi-static test, standardised international/national methodology, GLP: yes
- NOEC: 0,316 mg/l, 21 d, Daphnia magna (Water flea), semi-static test, standardised international/national methodology, GLP: yes

Dibenzoyl methane :

- Toxicity to fish : LC50: 11,313 mg/l, 96 h, QSAR
- Toxicity to daphnia and other aquatic invertebrates : LC50: 7,519 mg/l, 48 h, QSAR
- Toxicity to algae : 2,68 mg/l, 96 h, QSAR

Ecotoxicology Assessment

- Acute aquatic toxicity : Based on available data, the classification criteria are not met.
- Chronic aquatic toxicity : Based on available data, the classification criteria are not met.

12.2 Persistence and degradability

Components:

Epoxy resin :

- Biodegradability : aerobic, 5 %, Result: Not biodegradable., Exposure time: 28 d, activated sludge, OECD Test Guideline 301 F, GLP: yes

2,6-di-tert-butyl-p-cresol :

- Biodegradability : aerobic, Result: Readily biodegradable., Exposure time: 112 d, activated sludge, OECD Test Guideline 301, GLP: no



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: aerobic, Biochemical oxygen demand, Result: Partially biodegradable., Exposure time: 28 d, activated sludge, OECD Test Guideline 301

: aerobic, Result: Biodegradable, Exposure time: 24 d, Soil, OECD Test Guideline 304A, GLP: no, According to the results of tests of biodegradability this product is considered as being readily biodegradable.

Dibenzoyl methane :

Biodegradability : aerobic, 89 %, Result: Readily biodegradable., Exposure time: 28 d, activated sludge, ISO 9439

12.3 Bioaccumulative potential

Components:

Epoxy resin :

Bioaccumulation : Bioconcentration factor (BCF): 31, QSAR, Bioaccumulative potential slightly

2,6-di-tert-butyl-p-cresol :

Bioaccumulation : Cyprinus carpio (Carp), Exposure time: 28 d, 25 °C, Concentration: 0,005 mg/l, Bioconcentration factor (BCF): 330 - 1.800, standardised international/national methodology

: Cyprinus carpio (Carp), Exposure time: 56 d, 25 °C, Concentration: 0,05 mg/l, Bioconcentration factor (BCF): 230 - 2.500, standardised international/national methodology

Dibenzoyl methane :

Bioaccumulation : study scientifically unjustified

12.4 Mobility in soil

Components:

Epoxy resin :

Mobility : QSAR, Predicted distribution to environmental compartments, Soil, Water

2,6-di-tert-butyl-p-cresol :

Mobility : After release, disperses into the air.

Dibenzoyl methane :

Mobility : no data available

12.5 Results of PBT and vPvB assessment

Components:

Epoxy resin :

Assessment : Based on available data, the classification criteria are not met.

2,6-di-tert-butyl-p-cresol :

Assessment : Based on available data, the classification criteria are not met.

Dibenzoyl methane :

Assessment : Based on available data, the classification criteria are not met.



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12.6 Other adverse effects

Epoxy resin :

Further information : No information available.

2,6-di-tert-butyl-p-cresol :

Further information : No information available.

Dibenzoyl methane :

Further information : No information available.

13. Disposal considerations

13.1 Waste treatment methods

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

14. Transport information

14.1 UN number

DOT

Not dangerous goods

14.2 Proper shipping name

DOT

Not dangerous goods

14.3 Transport hazard class

DOT

Not dangerous goods

14.4 Packing group

DOT

Not dangerous goods

14.5 Environmental hazards

DOT

Not dangerous goods

14.6 Special precautions for user

See this safety data sheet chapter 6. - 8.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks : No transport according to Annex II of MARPOL 73/78 and the IBC Code



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15. Regulatory information

Section 313 Supplier Notification (USA)

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

Component	CAS/313 Category Code	Wt (%)
Not applicable		

National Legislation:

Registration Status:

TSCA	: listed
DSL	: listed
AICS	: listed
ENCS	: listed
ECL	: listed
PICCS	: listed
CHINA	: listed
EINECS	: listed

16. Other information

Date of Preparation or last change: 24.08.2015

HMIS Rating (USA)

Health	: 2
Flammability	: 1
Reactivity	: 1
Personal Protection	: G



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Full text of R-phrases

R36/38	Irritating to eyes and skin.
R43	May cause sensitisation by skin contact.
R50	Very toxic to aquatic organisms.
R51	Toxic to aquatic organisms.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53	May cause long-term adverse effects in the aquatic environment.

Full text of H-Statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.