

ULTRASTAR UV LED FP 58850 SILVER

Version 1.2 Revision Date: 04/13/2018 SDS Number: 102000028791 Date of last issue: 03/27/2018
Date of first issue: 03/26/2018

SECTION 1. IDENTIFICATION

Product name : ULTRASTAR UV LED FP 58850 SILVER

Product code : 045735B00

Manufacturer or supplier's details

Company name of supplier : ECKART GmbH

Address : Guentersthal 4
Hartenstein 91235

Telephone : +499152770

Telefax : +499152777008

Emergency telephone : CHEMTREC: 800-424-9300
CHEMTREC: 1-703-527-3387 (International)

GBK Gefahrgut Buero GmbH, Ingelheim, Germany:
From outside US: (001) 352-323-3500
(First call in English, response in your language is possible)
US & Canada (toll free):1-800-5355-053

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with 29 CFR 1910.1200**

Skin irritation : Category 2

Eye irritation : Category 2A

Skin sensitization : Category 1

GHS label elements

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H315 Causes skin irritation.

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H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

Precautionary Statements

: **Prevention:**

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/ eye protection/ face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous ingredients which must be listed on the label:

Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1)

Acrylic ester

ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.'.alpha."-1,2,3-propanetriyltris[.omega.-[(1-oxo-2-propen-1-yl)oxy]-

Phenol, 4-methoxy-

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

| Chemical name | CAS-No. | Concentration (% w/w) |
|---------------|---------|-----------------------|
|---------------|---------|-----------------------|

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| | | |
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| Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) | 28961-43-5 | >= 50 - < 70 |
| Acrylic ester | Not Assigned | >= 10 - < 20 |
| Acrylic oligomer | Not Assigned | >= 5 - < 10 |
| ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate | 84434-11-7 | >= 5 - < 10 |
| Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.',.alpha."-1,2,3-propanetriyltris[.omega.-[(1-oxo-2-propen-1-yl)oxy]- | 52408-84-1 | >= 1 - < 5 |
| Aluminum | 7429-90-5 | >= 1 - < 5 |
| Phenol, 4-methoxy- | 150-76-5 | >= 0.1 - < 1 |

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Show this material safety data sheet to the doctor in attendance.
- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.

SECTION 5. FIRE-FIGHTING MEASURES

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Unsuitable extinguishing media : High volume water jet

Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and 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.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : Do not breathe vapors/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.
Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being

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used.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
 Containers which are opened must be carefully resealed and kept upright to prevent leakage.
 Electrical installations / working materials must comply with the technological safety standards.

Further information on storage stability : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

| Ingredients | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|-------------|-----------|----------------------------------|---|-----------|
| Aluminum | 7429-90-5 | TWA (total dust) | 50 Million particles per cubic foot | OSHA Z-3 |
| | | TWA (Respirable) | 5 mg/m ³ | NIOSH REL |
| | | TWA (total dust) | 15 mg/m ³ | OSHA Z-3 |
| | | TWA (total) | 10 mg/m ³ | NIOSH REL |
| | | TWA (respirable fraction) | 5 mg/m ³ | OSHA Z-3 |
| | | TWA (respirable fraction) | 15 Million particles per cubic foot | OSHA Z-3 |
| | | TWA (Respirable fraction) | 1 mg/m ³ | ACGIH |
| | | TWA | 5 mg/m ³ (Aluminum) | NIOSH REL |
| | | TWA (Total) | 15 mg/m ³ (Aluminum) | OSHA P0 |
| | | TWA (Respirable fraction) | 5 mg/m ³ (Aluminum) | OSHA P0 |
| | | TWA (total dust) | 15 mg/m ³ (Aluminum) | OSHA Z-1 |

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| | | | | |
|--------------------|----------|--------------------------------|---------------------|-----------|
| | | TWA (respirable fraction) | 5 mg/m3 (Aluminum) | OSHA Z-1 |
| | | TWA (Total dust) | 15 mg/m3 (Aluminum) | OSHA P0 |
| | | TWA (respirable dust fraction) | 5 mg/m3 (Aluminum) | OSHA P0 |
| | | TWA (welding fumes) | 5 mg/m3 (Aluminum) | NIOSH REL |
| | | TWA (pyro powders) | 5 mg/m3 (Aluminum) | NIOSH REL |
| | | TWA (Respirable fraction) | 1 mg/m3 (Aluminum) | ACGIH |
| | | TWA (Fumes) | 5 mg/m3 | OSHA P0 |
| Phenol, 4-methoxy- | 150-76-5 | TWA | 5 mg/m3 | ACGIH |
| | | TWA | 5 mg/m3 | NIOSH REL |
| | | TWA | 5 mg/m3 | OSHA P0 |

Hazardous components without workplace control parameters

| Ingredients | CAS-No. |
|---|--------------|
| Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) | 28961-43-5 |
| Acrylic ester | Not Assigned |
| Acrylic oligomer | Not Assigned |
| ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate | 84434-11-7 |
| Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.',.alpha."-1,2,3-propanetriyltris[.omega.-[(1-oxo-2-propen-1-yl)oxy]- | 52408-84-1 |

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Personal protective equipment

Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid
 Color : silver
 Odor : characteristic
 Odor Threshold : No data available
 pH : No data available
 Melting point/freezing point : No data available
 Initial boiling point and boiling range : 157 °C
 Flash point : 94 °C

Evaporation rate : No data available
 Flammability (solid, gas) : No data available
 Upper explosion limit / Upper flammability limit : No data available
 Lower explosion limit / Lower flammability limit : No data available
 Vapor pressure : No data available
 Relative density : No data available
 Density : 1.0 - 1.2 g/cm³

Solubility(ies)
 Water solubility : insoluble
 Partition coefficient: n-octanol/water : No data available
 Autoignition temperature : No data available
 Decomposition temperature : No data available
 Viscosity : No data available

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SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous reactions : No decomposition if stored and applied as directed.

Conditions to avoid : No data available

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Not classified based on available information.

Ingredients:**ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate:**

Acute oral toxicity : (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402

Phenol, 4-methoxy-:

Acute oral toxicity : Acute toxicity estimate: 500 mg/kg
Method: Converted acute toxicity point estimate

Skin corrosion/irritation

Causes skin irritation.

Ingredients:**Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):**

Result: Skin irritation

Remarks: May cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation

Causes serious eye irritation.

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Ingredients:

Poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

Remarks: Vapors may cause irritation to the eyes, respiratory system and the skin.

Respiratory or skin sensitization**Skin sensitization**

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

Ingredients:

Poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

Result: May cause sensitization by skin contact.

Remarks: Causes sensitization.

May cause sensitization of susceptible persons by skin contact.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

STOT-single exposure

Not classified based on available information.

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STOT-repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Further information**Ingredients:**

Poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Ingredients:**

Poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

Toxicity to daphnia and other aquatic invertebrates : (Daphnia): 10,232.73 mg/l

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Other adverse effects

No data available

Ingredients:

Poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1):

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with

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chemical or used container.
Send to a licensed waste management company.
In accordance with local and national regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
In accordance with local and national regulations.

SECTION 14. TRANSPORT INFORMATION
International Regulations

Remarks : Not classified as dangerous in the meaning of transport regulations.

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

Not applicable for product as supplied.

Domestic regulation

SECTION 15. REGULATORY INFORMATION
EPCRA - Emergency Planning and Community Right-to-Know**CERCLA Reportable Quantity**

| Ingredients | CAS-No. | Component RQ (lbs) |
|------------------|----------|--------------------|
| Benzene, methyl- | 108-88-3 | 1000 |

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Skin corrosion or irritation
Serious eye damage or eye irritation
Respiratory or skin sensitization

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

| | | |
|----------|-----------|--------------|
| Aluminum | 7429-90-5 | >= 1 - < 5 % |
|----------|-----------|--------------|

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Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

| | | |
|------------------|----------|----------|
| Benzene, methyl- | 108-88-3 | 0.0059 % |
|------------------|----------|----------|

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

| | | |
|------------------|----------|----------|
| Benzene, methyl- | 108-88-3 | 0.0059 % |
|------------------|----------|----------|

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations**Massachusetts Right To Know**

| | |
|---|------------|
| Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) | 28961-43-5 |
| ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate | 84434-11-7 |
| Aluminum | 7429-90-5 |

Pennsylvania Right To Know

| | |
|---|--------------|
| Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-[(1-oxo-2-propen-1-yl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) | 28961-43-5 |
| Acrylic ester | Not Assigned |
| Acrylic oligomer | Not Assigned |
| ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate | 84434-11-7 |
| | Not Assigned |
| Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.', .alpha."-1,2,3-propanetriyltris[.omega.-[(1-oxo-2-propen-1-yl)oxy]- | 52408-84-1 |
| Aluminum | 7429-90-5 |

California Prop. 65

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WARNING: This product can expose you to chemicals including lead and cadmium, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

| | |
|----------|-----------|
| Aluminum | 7429-90-5 |
|----------|-----------|

California Permissible Exposure Limits for Chemical Contaminants

| | |
|----------|-----------|
| Aluminum | 7429-90-5 |
|----------|-----------|

The ingredients of this product are reported in the following inventories:

DSL : This product contains one or several components that are not on the Canadian DSL nor NDSL.

TSCA : On TSCA Inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION**Full text of other abbreviations**

| | |
|-----------------|---|
| ACGIH | : USA. ACGIH Threshold Limit Values (TLV) |
| NIOSH REL | : USA. NIOSH Recommended Exposure Limits |
| OSHA P0 | : USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
| OSHA Z-1 | : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| OSHA Z-3 | : USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts |
| ACGIH / TWA | : 8-hour, time-weighted average |
| NIOSH REL / TWA | : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek |
| OSHA P0 / TWA | : 8-hour time weighted average |
| OSHA Z-1 / TWA | : 8-hour time weighted average |
| OSHA Z-3 / TWA | : 8-hour time weighted average |

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the

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German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 04/13/2018

The information provided in this Material 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.

US / Z8