

**SILVERSHINE 412 Aluminium Paste**

Version 1.1      Revision Date: 09/14/2018      SDS Number: 102000024923      Date of last issue: -  
Date of first issue: 03/21/2018

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**SECTION 1. IDENTIFICATION**

Product name : SILVERSHINE 412 Aluminium Paste  
Product code : 022579G60

**Manufacturer or supplier's details**

Company name of supplier : ECKART GmbH  
Address : Guentersthal 4  
Hartenstein 91235  
Telephone : +499152770  
Telefax : +499152777008  
Emergency telephone number : 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

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

Specific target organ toxicity : Category 3 (Respiratory system)  
- single exposure

**GHS label elements**

Hazard pictograms :



Signal word : Warning

Hazard statements : H335 May cause respiratory irritation.

Precautionary statements : **Prevention:**

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P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
 P271 Use only outdoors or in a well-ventilated area.

**Response:**

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

**Storage:**

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
 P405 Store locked up.

**Disposal:**

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

**Other hazards**

None known.

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**
**Hazardous components**

Chemical name	CAS-No.	Concentration (% w/w)
Aluminum	7429-90-5	>= 50 - < 70
Solvent naphtha (petroleum), light arom.	64742-95-6	>= 20 - < 30
Naphtha (petroleum), hydrotreated heavy	64742-48-9	>= 10 - < 20

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**SECTION 4. FIRST AID MEASURES**

General advice : Move the victim to fresh air.  
 Do not leave the victim unattended.  
 Move out of dangerous area.  
 Show this 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 : Wash off immediately with soap and plenty of water.

In case of eye contact : Immediately flush eye(s) with plenty of water.  
 Flush eyes with water as a precaution.

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- 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 : May cause respiratory irritation.

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### SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Dry sand  
Special powder against metal fire
- Unsuitable extinguishing media : Water  
Foam  
ABC powder  
Carbon dioxide (CO<sub>2</sub>)
- Specific hazards during firefighting : 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 firefighters : Use personal protective equipment.  
  
Wear self-contained breathing apparatus for firefighting if necessary.

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### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.  
Use personal protective equipment.  
Remove all sources of ignition.  
Use personal protective equipment.  
Avoid dust formation.

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- 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      :
- Use mechanical handling equipment.
  - Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
  - Do not flush with water.
  - Keep in suitable, closed containers for disposal.
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**SECTION 7. HANDLING AND STORAGE**

- Advice on protection against fire and explosion      :
- Keep away from open flames, hot surfaces and sources of ignition.
  - Earthing of containers and apparatuses is essential.
  - Avoid dust formation.
- Advice on safe handling      :
- Keep away from heat and sources of ignition.
  - Avoid dust formation.
  - Ensure adequate ventilation.
  - Avoid formation of respirable particles.
  - Do not breathe vapours/dust.
  - Avoid exposure - obtain special instructions before use.
  - For personal protection see section 8.
  - Smoking, eating and drinking should be prohibited in the application area.
  - Provide sufficient air exchange and/or exhaust in work rooms.
  - Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage      :
- Store in original container.
  - Keep containers tightly closed in a cool, well-ventilated place.
  - Keep container closed when not in use.
  - Keep away from sources of ignition - No smoking.
  - Keep container tightly closed in a dry and well-ventilated place.
  - Observe label precautions.
  - Electrical installations / working materials must comply with the technological safety standards.
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Technical measures/Precautions : Protect from humidity and water.  
Do not allow to dry.

Materials to avoid : Do not store together with oxidizing and self-igniting products.  
Never allow product to get in contact with water during storage.  
Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

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

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## Components with workplace control parameters

Components	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 <sup>3</sup>	NIOSH REL
		TWA (total dust)	15 mg/m <sup>3</sup>	OSHA Z-3
		TWA (total)	10 mg/m <sup>3</sup>	NIOSH REL
		TWA (respirable fraction)	5 mg/m <sup>3</sup>	OSHA Z-3
		TWA (respirable fraction)	15 Million particles per cubic foot	OSHA Z-3
		TWA (Respirable fraction)	1 mg/m <sup>3</sup>	ACGIH
		TWA	5 mg/m <sup>3</sup> (Aluminium)	NIOSH REL
		TWA (Total)	15 mg/m <sup>3</sup> (Aluminium)	OSHA P0
		TWA (Respirable fraction)	5 mg/m <sup>3</sup> (Aluminium)	OSHA P0
		TWA (total)	15 mg/m <sup>3</sup>	OSHA Z-1

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		dust)	(Aluminium)	
		TWA (respirable fraction)	5 mg/m <sup>3</sup> (Aluminium)	OSHA Z-1
		TWA (Total dust)	15 mg/m <sup>3</sup> (Aluminium)	OSHA P0
		TWA (respirable dust fraction)	5 mg/m <sup>3</sup> (Aluminium)	OSHA P0
		TWA (welding fumes)	5 mg/m <sup>3</sup> (Aluminium)	NIOSH REL
		TWA (pyro powders)	5 mg/m <sup>3</sup> (Aluminium)	NIOSH REL
		TWA (Respirable fraction)	1 mg/m <sup>3</sup> (Aluminium)	ACGIH
		TWA (Fumes)	5 mg/m <sup>3</sup>	OSHA P0
Solvent naphtha (petroleum), light arom.	64742-95-6	TWA	500 ppm 2,000 mg/m <sup>3</sup>	OSHA Z-1
		TWA	200 mg/m <sup>3</sup> (total hydrocarbon vapor)	ACGIH
		TWA	400 ppm 1,600 mg/m <sup>3</sup>	OSHA P0
Naphtha (petroleum), hydrotreated heavy	64742-48-9	TWA	500 ppm 2,000 mg/m <sup>3</sup>	OSHA Z-1
		TWA	400 ppm 1,600 mg/m <sup>3</sup>	OSHA P0

**Personal protective equipment**

Respiratory protection : Use suitable breathing protection if workplace concentration requires.

In the case of dust or aerosol formation use respirator with an approved filter.

Dust safety masks are recommended when the dust concentration is more than 10 mg/m<sup>3</sup>.

Hand protection

Material

: Solvent-resistant gloves

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- Remarks : Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). The exact break through time can be obtained from the protective glove producer and this has to be observed. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Recommended preventive skin protection Skin should be washed after contact. The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye protection : Safety glasses
- Skin and body protection : Long sleeved clothing  
Safety shoes  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Hygiene measures : Wash hands before breaks and at the end of workday.

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### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Pasty solid
- Colour : silver
- Odour : characteristic
- Odour Threshold : No data available
- pH : No data available
- Melting point/freezing point : No data available
- Initial boiling point and boiling range : No data available
- Flash point : No data available
- Evaporation rate : No data available
- Flammability (solid, gas) : Combustible Solids
- Auto-flammability : not auto-flammable  
not auto-flammable
- Burning number : 1
- Upper explosion limit / Upper : No data available

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flammability limit		
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	No data available
Relative density	:	No data available
Density	:	1.3 - 2.0 g/cm <sup>3</sup>
Solubility(ies)		
Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	Not explosive Not explosive

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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	:	Reacts with alkalis, acids, halogenes and oxidizing agents. Contact with acids and alkalis may release hydrogen. Mixture reacts slowly with water resulting in evolution of hydrogen. Vapour/air-mixtures are explosive at intense warming. Stable under recommended storage conditions.
Conditions to avoid	:	Do not allow to dry.  No data available
Incompatible materials	:	Acids Bases Oxidizing agents Highly halogenated compounds

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### SECTION 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

Not classified based on available information.

#### Components:

**Solvent naphtha (petroleum), light arom.:**

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Acute oral toxicity : LD50 (Rat): 3,492 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 3,160 mg/kg

**Naphtha (petroleum), hydrotreated heavy:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): Test atmosphere: vapour  
Remarks: An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

**Skin corrosion/irritation**

Not classified based on available information.

**Serious eye damage/eye irritation**

Not classified based on available information.

**Respiratory or skin sensitisation****Skin sensitisation**

Not classified based on available information.

**Respiratory sensitisation**

Not classified based on available information.

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**IARC**

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

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**Reproductive toxicity**

Not classified based on available information.

**STOT - single exposure**

May cause respiratory irritation.

**Components:****Solvent naphtha (petroleum), light arom.:**

Assessment: May cause respiratory irritation., May cause drowsiness or dizziness.

**STOT - repeated exposure**

Not classified based on available information.

**Aspiration toxicity**

Not classified based on available information.

**Components:****Solvent naphtha (petroleum), light arom.:**

May be fatal if swallowed and enters airways.

**Further information****Components:****Naphtha (petroleum), hydrotreated heavy:**

Remarks: Solvents may degrease the skin.

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Components:****Solvent naphtha (petroleum), light arom.:****Ecotoxicology Assessment**

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

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### Other adverse effects

No data available

### Components:

#### **Naphtha (petroleum), hydrotreated heavy:**

Additional ecological information : No data available

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## 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 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.

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## SECTION 14. TRANSPORT INFORMATION

### National Regulations

#### **49 CFR**

Not regulated as a dangerous good

### International Regulations

#### **IATA-DGR**

- UN/ID No. : UN 3077
- Proper shipping name : Environmentally hazardous substance, solid, n.o.s.  
(aromatic hydrocarbons)
- Class : 9
- Packing group : III
- Labels : Miscellaneous Dangerous Goods
- Packing instruction (cargo aircraft) : 956
- Packing instruction (passenger aircraft) : 956

#### **IMDG-Code**

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UN number	:	UN 3077
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (aromatic hydrocarbons)
Class	:	9
Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F
Marine pollutant	:	yes
Remarks	:	IMDG Code segregation group 7 - Heavy metals and their salts
Remarks	:	For single packagings <=5L / 5 kg, or combination packagings containing inner packagings <= 5L / 5 kg net per inner packaging, SV375 ADR, 2.10.2.7 IMDG-Code, A197 IATA-DGR may be applied.

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

Not applicable for product as supplied.

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## SECTION 15. REGULATORY INFORMATION

### EPCRA - Emergency Planning and Community Right-to-Know Act

#### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

#### 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** : Specific target organ toxicity (single or repeated exposure)

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

Aluminum	7429-90-5	>= 50 - < 70 %
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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).

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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

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

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

Aluminum	7429-90-5
Solvent naphtha (petroleum), light arom.	64742-95-6

#### Pennsylvania Right To Know

Aluminum	7429-90-5
Solvent naphtha (petroleum), light arom.	64742-95-6
Naphtha (petroleum), hydrotreated heavy	64742-48-9
9-Octadecenoic acid (9Z)-	112-80-1

#### California Prop. 65



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](http://www.P65Warnings.ca.gov).

#### California List of Hazardous Substances

Aluminum	7429-90-5
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#### California Permissible Exposure Limits for Chemical Contaminants

Aluminum	7429-90-5
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#### The components of this product are reported in the following inventories:

DSL	:	All components of this product are on the Canadian DSL
TSCA	:	On TSCA Inventory

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### TSCA list

No substances are subject to a Significant New Use Rule.

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

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### 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 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; KECL - 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 -

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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 : 09/14/2018

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.

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