

SAFETY DATA SHEET

According to UK REACH and COSHH Regulations, and their amendments



Vivolt

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	06.01.2025	800080006483	Date of first issue: 06.01.2025

Corteva Agriscience™ encourages you and expects you to read and understand the entire SDS as there is important information throughout the document. This SDS provides users with information relating to the protection of human health and safety at the workplace, protection of the environment and supports emergency response. Product users and applicators should primarily refer to the product label attached to or accompanying the product container. This Safety Data Sheet adheres to the standards and regulatory requirements of Great Britain and may not meet the regulatory requirements in other countries.

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

1.1 Product identifier

Trade name	: Vivolt
Unique Formula Identifier (UFI)	: E2QQ-5073-R008-XR66

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

Use of the Substance/Mixture	: Surfactant
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1.3 Details of the supplier of the safety data sheet

COMPANY IDENTIFICATION

Manufacturer/importer

Corteva Agriscience UK Ltd
Melbourn Science Park - Cambridge Road - Unit H4, Building H
Melbourn Cambridgeshire - SG8 6HB
UNITED KINGDOM

Customer Information Number	: +44 1462 457272
E-mail address	: SDS@corteva.com

1.4 Emergency telephone number

+44 161 88 41235

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Serious eye damage, Category 1	H318: Causes serious eye damage.

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2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Hazard pictograms



Signal word

: Danger

Hazard statements

: H302 Harmful if swallowed.
H318 Causes serious eye damage.

Precautionary statements

: **Prevention:**

P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

Disposal:

P501 Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

Hazardous components which must be listed on the label:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-

Additional Labelling

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SAFETY DATA SHEET

According to UK REACH and COSHH Regulations, and their amendments



Vivolt

Version	Revision Date:	SDS Number:	Date of last issue: -
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Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-	61827-42-7	Acute Tox. 4; H302 Eye Dam. 1; H318	90

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- | | |
|-------------------------|--|
| General advice | : Never give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. |
| If inhaled | : Remove person to fresh air. If signs/symptoms continue, get medical attention.
Artificial respiration and/or oxygen may be necessary. |
| In case of skin contact | : Take off all contaminated clothing immediately.
Rinse skin immediately with plenty of water for 15-20 minutes.
Call a poison control center or doctor for treatment advice. |
| In case of eye contact | : If easy to do, remove contact lens, if worn.
Hold eye open and rinse slowly and gently with water for 15-20 minutes.
If eye irritation persists, consult a specialist. |
| If swallowed | : Call a poison control center or doctor for treatment advice.
Have person sip a glass of water if able to swallow.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
Never give anything by mouth to an unconscious person. |

4.2 Most important symptoms and effects, both acute and delayed

- | | |
|----------|---|
| Symptoms | : No cases of human intoxication are known and the symptoms of experimental intoxication are not known. |
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SAFETY DATA SHEET

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Vivolt

Version	Revision Date:	SDS Number:	Date of last issue: -
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4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water spray
Carbon dioxide (CO₂)
Regular foam

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Nitrogen oxides (NO_x)
Carbon oxides

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.

Specific extinguishing methods : Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

6.2 Environmental precautions

Environmental precautions : If the product contaminates rivers and lakes or drains inform respective authorities.
Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

SAFETY DATA SHEET

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Vivolt

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	06.01.2025	800080006483	Date of first issue: 06.01.2025

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in.
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped,
Recovered material should be stored in a vented container.
The vent must prevent the ingress of water as further reaction with spilled materials can take place which could lead to overpressurization of the container.
Keep in suitable, closed containers for disposal.
Wipe up with absorbent material (e.g. cloth, fleece).
See Section 13, Disposal Considerations, for additional information.

6.4 Reference to other sections

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapours/dust.
Handle in accordance with good industrial hygiene and safety practice.
Smoking, eating and drinking should be prohibited in the application area.
Take care to prevent spills, waste and minimize release to the environment.
Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing. Keep working clothes separately. Contaminated work clothing should not be allowed out of the workplace. Wash hands and face before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in a closed container. Keep in properly labelled containers. Store in accordance with the particular national regulations.

Advice on common storage : Strong oxidizing agents

Packaging material : Unsuitable material: None known.

7.3 Specific end use(s)

Specific use(s) : Plant protection products subject to Regulation (EC) No 1107/2009.

SAFETY DATA SHEET

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Version	Revision Date:	SDS Number:	Date of last issue: -
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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures

Use only with adequate ventilation.

Personal protective equipment

Eye/face protection : Safety glasses with side-shields conforming to EN166
Wear safety glasses with side shields.
Additionally wear a face shield where the possibility exists for face contact due to splashing, spraying or airborne contact with this material.

Hand protection

Remarks : Protective gloves
Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Skin and body protection : Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection : Where there is potential for airborne exposures in excess of applicable limits, wear approved respiratory protection with dust/mist cartridge.

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
All chemical protective clothing should be visually inspected prior to use. Clothing and gloves should be replaced in case of chemical or physical damage or if contaminated.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	: liquid
Colour	: colourless
Odour	: slight

SAFETY DATA SHEET

According to UK REACH and COSHH Regulations, and their amendments



Vivolt

Version 1.0	Revision Date: 06.01.2025	SDS Number: 800080006483	Date of last issue: - Date of first issue: 06.01.2025
----------------	------------------------------	-----------------------------	--

Odour Threshold	:	No data available
pH	:	5 - 7 Concentration: 10 g/L
Melting point/freezing point	:	Not applicable
Boiling point/boiling range	:	not determined
Flash point	:	130 - 199 °C
Evaporation rate	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	< 1.33 hPa (20 °C)
Relative vapour density	:	No data available
Relative density	:	1 (20 °C)
Density	:	1.0 g/cm ³ (25 °C)
Solubility(ies)		
Water solubility	:	completely soluble
Auto-ignition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	75 mPa,s (20 °C)
Viscosity, kinematic	:	75 mm ² /s (20 °C)
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

9.2 Other information

Self-ignition	:	> 100 °C
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SECTION 10: Stability and reactivity

10.1 Reactivity

Not classified as a reactivity hazard.

SAFETY DATA SHEET

According to UK REACH and COSHH Regulations, and their amendments



Vivolt

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	06.01.2025	800080006483	Date of first issue: 06.01.2025

10.2 Chemical stability

No decomposition if stored and applied as directed.
Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.
No hazards to be specially mentioned.
None known.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Strong acids
Strong bases
Strong oxidizing agents

10.6 Hazardous decomposition products

Stable under recommended storage conditions.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Acute oral toxicity : LD50 (Rat): > 1,000 mg/kg
Method: Estimated.

Skin corrosion/irritation

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Species : Rabbit
Result : Mild skin irritation

Serious eye damage/eye irritation

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Species : Rabbit
Result : Corrosive

SAFETY DATA SHEET

According to UK REACH and COSHH Regulations, and their amendments



Vivolt

Version	Revision Date:	SDS Number:	Date of last issue: -
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Respiratory or skin sensitisation

Product:

Species	:	Guinea pig
Assessment	:	Does not cause skin sensitisation.
Method	:	US EPA Test Guideline OPP 81-6

STOT - single exposure

Product:

Assessment	:	Available data are inadequate to determine single exposure specific target organ toxicity.
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Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Assessment	:	Available data are inadequate to determine single exposure specific target organ toxicity.
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STOT - repeated exposure

Product:

Assessment	:	Evaluation of available data suggests that this material is not an STOT-RE toxicant.
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Repeated dose toxicity

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Remarks	:	Based on available data, repeated exposures are not anticipated to cause significant adverse effects.
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Aspiration toxicity

Product:

Based on available information, aspiration hazard could not be determined.

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Based on available information, aspiration hazard could not be determined.

SECTION 12: Ecological information

12.1 Toxicity

Product:

SAFETY DATA SHEET

According to UK REACH and COSHH Regulations, and their amendments



Vivolt

Version 1.0	Revision Date: 06.01.2025	SDS Number: 800080006483	Date of last issue: - Date of first issue: 06.01.2025
----------------	------------------------------	-----------------------------	--

Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): 42 mg/l Exposure time: 96 h Remarks: For similar material(s):
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 40 mg/l Exposure time: 48 h
Toxicity to soil dwelling organisms	: > 1,000 mg/kg Exposure time: 14 d Species: Eisenia fetida (earthworms)

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): > 10 - 100 mg/l Exposure time: 96 h Remarks: For similar material(s):
Toxicity to daphnia and other aquatic invertebrates	: EC50 : > 10 - 100 mg/l Exposure time: 48 h Remarks: For similar material(s):
Toxicity to algae/aquatic plants	: EC50 : > 10 - 100 mg/l Exposure time: 72 h Remarks: For similar material(s):

12.2 Persistence and degradability

Product:

Biodegradability	: Biodegradation: > 70 % Method: OECD Test Guideline 301 Remarks: Readily biodegradable. Information given is based on data obtained from similar substances.
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Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Biodegradability	: Result: Readily biodegradable. Biodegradation: > 60 % Exposure time: 28 d Method: OECD Test Guideline 301B Remarks: For similar material(s): Material is expected to be readily biodegradable.
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12.3 Bioaccumulative potential

Product:

Bioaccumulation	: Remarks: Does not bioaccumulate. Estimation based on data obtained on active ingredient.
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SAFETY DATA SHEET

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Vivolt

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	06.01.2025	800080006483	Date of first issue: 06.01.2025

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Partition coefficient: n-octanol/water : Remarks: No relevant data found.

12.4 Mobility in soil

Product:

Distribution among environmental compartments : Remarks: The product is not expected to be mobile in soils.

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Assessment : This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

12.6 Other adverse effects

Product:

Endocrine disrupting potential : This substance/mixture does not contain components considered to have endocrine disrupting properties for environment according to UK REACH Article 57(f).

Additional ecological information : Environmental Hazards:
Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark.

See product label for additional application instructions relating to environmental precautions.

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-isodecyl-.omega.-hydroxy-:

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : If wastes and/or containers cannot be disposed of according

SAFETY DATA SHEET

According to UK REACH and COSHH Regulations, and their amendments



Vivolt

Version 1.0	Revision Date: 06.01.2025	SDS Number: 800080006483	Date of last issue: - Date of first issue: 06.01.2025
----------------	------------------------------	-----------------------------	--

to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

SECTION 14: Transport information

14.1 UN number

ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
IATA	:	Not regulated as a dangerous good

14.2 UN proper shipping name

ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
IATA	:	Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
IATA	:	Not regulated as a dangerous good

14.4 Packing group

ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
IATA (Cargo)	:	Not regulated as a dangerous good
IATA (Passenger)	:	Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

SAFETY DATA SHEET

According to UK REACH and COSHH Regulations, and their amendments



Vivolt

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	06.01.2025	800080006483	Date of first issue: 06.01.2025

14.6 Special precautions for user

Not applicable

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation	: Not applicable
The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain)	: Not applicable
Regulation (EC) on substances that deplete the ozone layer	: Not applicable
UK REACH List of substances subject to authorisation (Annex XIV)	: Not applicable
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	Not applicable

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

The mixture is evaluated within the frame of the provisions of Regulation (EC) No. 1107/2009. Refer to the label for exposure assessment information.

SECTION 16: Other information

Full text of H-Statements

H302	: Harmful if swallowed.
H318	: Causes serious eye damage.

Full text of other abbreviations

Acute Tox.	: Acute toxicity
Eye Dam.	: Serious eye damage

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; ASTM - American Society for the Testing of Materials; ECx - Concentration associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; 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;

SAFETY DATA SHEET

According to UK REACH and COSHH Regulations, and their amendments



Vivolt

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	06.01.2025	800080006483	Date of first issue: 06.01.2025

n.o.s. - not otherwise specified; NOEC - Non-Observed Effective Concentration; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; (Q)SAR - (Quantitative) Structure Activity Relationship; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SDS - Safety Data Sheet; UN - United Nations.

Further information

Other information : Take notice of the directions of use on the label.

Classification of the mixture:

Acute Tox. 4	H302
Eye Dam. 1	H318

Classification procedure:

Based on product data or assessment
Based on product data or assessment

Product code: 3PP-Trend90

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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