	Page: 1
SAFETY DATA SHEET	Revision Date: 31.05.2022
	Print Date: 28.12.2022
	SDS Number: 000000083694
Praestol™ 2540 FLOCCULANT ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 375550	Version: 2.2

Conforms to EU Regulation 1907/2006/EC as amended.

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

1.1 Product identifier

Trade name : Praestol™ 2540
 FLOCCULANT
 ™ Trademark, Solenis or its subsidiaries or affiliates,
 registered in various countries

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

Use of the Substance/Mixture : drilling fluid additive

1.3 Details of the supplier of the safety data sheet Solenis Pesetastraat 62 2991 XT Barendrecht Netherlands Solenis UK Industries Limited P. O. Box 38, Cleckheaton Rd, Low Moor, Bradford, BD12 0JZ, United Kingdom E-mail address of person responsible for the SDS: EHSProductSafetyTeam@solenis.com Product Information Contact your local Solenis representative	1.4 Emergency telephone number +1-302-502-0991 , or contact your local emergency telephone number at 112
---	---

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture


Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

		Page: 2
SAFETY DATA SHEET		Revision Date: 31.05.2022
		Print Date: 28.12.2022
		SDS Number: 000000083694
PraestoI™ 2540 FLOCCULANT ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 375550		Version: 2.2

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.

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.

Material can create slippery conditions.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Remarks : No hazardous ingredients


SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : No hazards which require special first aid measures.
- If inhaled : If breathed in, move person into fresh air.
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
- In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
If eye irritation persists, consult a specialist.
- If swallowed : IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Signs and symptoms of exposure to this material through

		Page: 3
SAFETY DATA SHEET		Revision Date: 31.05.2022
		Print Date: 28.12.2022
		SDS Number: 000000083694
Praestol™ 2540 FLOCCULANT ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 375550		Version: 2.2

breathing, swallowing, and/or passage of the material through the skin may include:
stomach or intestinal upset (nausea, vomiting, diarrhea)
irritation (nose, throat, airways)
Cough
Shortness of breath

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No hazards which require special first aid measures.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Organic dusts at sufficient concentration can form explosive mixtures in air.
Do not allow run-off from fire fighting to enter drains or water courses.


Hazardous combustion products : Carbon monoxide
Carbon dioxide (CO₂)
Nitrogen oxides (NO_x)
Ammonia
sulfur oxides
acid vapors

5.3 Advice for firefighters

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

Specific extinguishing methods : Product is compatible with standard fire-fighting agents.

Further information : Material can create slippery conditions.
Water may cause extremely slippery conditions.

		Page: 4
SAFETY DATA SHEET		Revision Date: 31.05.2022
		Print Date: 28.12.2022
		SDS Number: 000000083694
PraestoI™ 2540 FLOCCULANT ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 375550		Version: 2.2

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions : Material can create slippery conditions.
Avoid dust formation.
Avoid breathing dust.
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
Comply with all applicable federal, state, and local regulations.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

- Methods for cleaning up : Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For further information see Section 8 and Section 13 of the safety data sheet.


SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : Avoid spillage on floor as the product can become very slippery.
Avoid dust formation.
Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
Dispose of rinse water in accordance with local and national regulations.
- Advice on protection against fire and explosion : Take measures to prevent the build up of electrostatic charge.
Provide appropriate exhaust ventilation at places where dust is formed.
- Hygiene measures : Avoid breathing dust. Wash hands before breaks and at the end of workday. When using do not eat or drink. When using do not smoke.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. No smoking. Electrical installations / working materials must comply with the technological safety standards.
- Further information on : Keep in a dry place.

	Page: 5
SAFETY DATA SHEET	Revision Date: 31.05.2022
	Print Date: 28.12.2022
	SDS Number: 000000083694
Praestol™ 2540 FLOCCULANT ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 375550	Version: 2.2

storage stability

No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : No data available


SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
ammonium sulphate	Workers	Inhalation	Long-term systemic effects	11,167 mg/m3
	Workers	Dermal	Long-term systemic effects	42,667 mg/kg
	General population	Inhalation	Long-term systemic effects	1,667 mg/m3
	General population	Dermal	Long-term systemic effects	12,8 mg/kg
	General population	Oral	Long-term systemic effects	6,4 mg/kg
UREA	Workers	Inhalation	Long-term systemic effects	292 mg/m3
Remarks:	Developmental toxicity			
	Workers	Inhalation	Systemic, short-term	292 mg/m3
Remarks:	Developmental toxicity			
	Workers	Dermal	Long-term systemic effects	580 mg/kg
Remarks:	Developmental toxicity			
	Workers	Dermal	Systemic, short-term	580 mg/kg
Remarks:	Developmental toxicity			
	General population	Inhalation	Long-term systemic effects	125 mg/m3
Remarks:	Developmental toxicity			
	General population	Inhalation	Systemic, short-term	125 mg/m3
Remarks:	Developmental toxicity			
	General population	Dermal	Long-term systemic effects	580 mg/kg
Remarks:	Developmental toxicity			
	General population	Dermal	Systemic, short-term	580 mg/kg
Remarks:	Developmental toxicity			
	General population	Oral	Long-term systemic effects	42 mg/kg
Remarks:	Developmental toxicity			

	Page: 6
SAFETY DATA SHEET	Revision Date: 31.05.2022
	Print Date: 28.12.2022
	SDS Number: 000000083694
PraestoI™ 2540 FLOCCULANT ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 375550	Version: 2.2

	General population	Oral	Systemic, short-term	42 mg/kg
Remarks:	Developmental toxicity			

8.2 Exposure controls

Engineering measures

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Provide appropriate exhaust ventilation at places where dust is formed.

Personal protective equipment

Eye protection : Safety glasses

Hand protection


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

Skin and body protection : Wear as appropriate:
 Safety shoes
 Dust impervious protective suit
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.
 Wear resistant gloves (consult your safety equipment supplier).

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	: powder
Colour	: white
Odour	: odourless
Odour Threshold	: No data available
Melting point/freezing point	: No data available
Boiling point/boiling range	: No data available
Flammability	: No data available
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available

		Page: 7
SAFETY DATA SHEET		Revision Date: 31.05.2022
		Print Date: 28.12.2022
		SDS Number: 000000083694
PraestoI™ 2540 FLOCCULANT ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 375550		Version: 2.2

Flash point : Not applicable

Decomposition temperature : No data available

pH : ca. 7,5 (20 °C)
Concentration: 10 g/l

Viscosity

Viscosity, dynamic : 200 - 300 mPa.s (20 °C)

Viscosity, kinematic : No data available

Solubility(ies)

Water solubility : soluble

Solubility in other solvents : No data available

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

Vapour pressure : No data available

Relative density : No data available

Density : No data available

Bulk density : 600 - 800 kg/m³

Relative vapour density : No data available

9.2 Other information

Oxidizing properties : No data available

Self-ignition : No data available

Evaporation rate : No data available

SECTION 10: Stability and reactivity

10.1 Reactivity


No decomposition if stored and applied as directed.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Product will not undergo hazardous polymerization.

		Page: 8
SAFETY DATA SHEET		Revision Date: 31.05.2022
		Print Date: 28.12.2022
		SDS Number: 000000083694
PraestoI™ 2540 FLOCCULANT ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 375550		Version: 2.2

10.4 Conditions to avoid

Conditions to avoid : Keep away from heat, flame, sparks and other ignition sources.

10.5 Incompatible materials

Materials to avoid : Acids
chlorates
Chlorine
nitrates
Oxidizing agents
strong bases
Peroxides

10.6 Hazardous decomposition products

Hazardous decomposition products : Carbon monoxide
Carbon dioxide (CO₂)
Nitrogen oxides (NO_x)
Ammonia
Sulphur oxides
acid vapors

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : LD₅₀ (Mouse): > 5.000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Result : Not irritating to skin


Serious eye damage/eye irritation

Not classified based on available information.

Product:

Result : Mildly irritating to eyes

Remarks : Unlikely to cause eye irritation or injury.
Product dust may be irritating to eyes, skin and respiratory system.

		Page: 9
SAFETY DATA SHEET		Revision Date: 31.05.2022
		Print Date: 28.12.2022
		SDS Number: 000000083694
PraestoI™ 2540 FLOCCULANT ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 375550		Version: 2.2

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Product:

Species : Guinea pig
Method : OECD Test Guideline 406

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

11.2 Information on other hazards

Endocrine disrupting properties


Product:

Assessment : 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.

Further information

Product:

Remarks : No data available

		Page: 10
SAFETY DATA SHEET		Revision Date: 31.05.2022
		Print Date: 28.12.2022
		SDS Number: 000000083694
PraestoI™ 2540 FLOCCULANT ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 375550		Version: 2.2

SECTION 12: Ecological information

12.1 Toxicity

Product:

- Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): ca. 140 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
- LC50 (Danio rerio (zebra fish)): ca. 160 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): ca. 300 mg/l
Exposure time: 24 h
Method: OECD Test Guideline 202
- Toxicity to algae/aquatic plants : IC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Test conducted using environmentally representative water.
- Toxicity to microorganisms : EC50 (Pseudomonas putida): > 1.600 mg/l
Exposure time: 24 h

12.2 Persistence and degradability

Product:

- Biodegradability : Remarks: Not readily biodegradable.

12.3 Bioaccumulative potential

Product:

- Bioaccumulation : Remarks: Does not bioaccumulate.
- Remarks: The bioaccumulation potential cannot be determined.


12.4 Mobility in soil

No data available

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..

		Page: 11
SAFETY DATA SHEET		Revision Date: 31.05.2022
		Print Date: 28.12.2022
		SDS Number: 000000083694
PraestoI™ 2540 FLOCCULANT ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 375550		Version: 2.2

12.6 Endocrine disrupting properties

Product:

Assessment : 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.

12.7 Other adverse effects

Product:

Additional ecological information : No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

SECTION 14: Transport information

14.1 UN number or ID number

ADR: Not dangerous goods

ADN: Not dangerous goods

RID: Not dangerous goods


IMDG-Code: Not dangerous goods

IATA-DGR: Not dangerous goods

14.2 UN proper shipping name

ADR: Not dangerous goods

ADN: Not dangerous goods

		Page: 12
SAFETY DATA SHEET		Revision Date: 31.05.2022
		Print Date: 28.12.2022
		SDS Number: 000000083694
PraestoI™ 2540 FLOCCULANT ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 375550		Version: 2.2

RID: Not dangerous goods
IMDG-Code: Not dangerous goods
IATA-DGR: Not dangerous goods

14.3 Transport hazard class(es)

ADR: Not dangerous goods
ADN: Not dangerous goods
RID: Not dangerous goods
IMDG-Code: Not dangerous goods
IATA-DGR: Not dangerous goods

14.4 Packing group

ADR: Not dangerous goods
ADN: Not dangerous goods
RID: Not dangerous goods
IMDG-Code: Not dangerous goods
IATA-DGR: Not dangerous goods

14.5 Environmental hazards

ADR: Not applicable
ADN: Not applicable
RID: Not applicable
IMDG-Code: Not applicable
IATA-DGR: Not applicable

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments


Not applicable for product as supplied.

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: Conditions of restriction for the following entries should be considered: ammonium sulphate (Number on list
--	--

		Page: 13
SAFETY DATA SHEET		Revision Date: 31.05.2022
		Print Date: 28.12.2022
		SDS Number: 000000083694
PraestoI™ 2540 FLOCCULANT ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 375550		Version: 2.2

65)

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

UK REACH List of substances subject to authorisation (Annex XIV) : Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : 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

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

- TCSI : On the inventory, or in compliance with the inventory
- TSCA : All substances listed as active on the TSCA inventory
- AIIC : All components are listed on the inventory, regulatory obligations/restrictions apply
- DSL : All components of this product are on the Canadian DSL
- NZIOC : On the inventory, or in compliance with the inventory
- ENCS : On the inventory, or in compliance with the inventory
- KECI : On the inventory, or in compliance with the inventory
- PICCS : On the inventory, or in compliance with the inventory
- IECSC : On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

No data available

		Page: 14
SAFETY DATA SHEET		Revision Date: 31.05.2022
		Print Date: 28.12.2022
		SDS Number: 000000083694
PraestoI™ 2540 FLOCCULANT ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 375550		Version: 2.2

SECTION 16: Other information

Further information

Revision Date: 31.05.2022

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; 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; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Sources of key data used to compile the Safety Data Sheet


Key literature references and sources of data

SOLENIS Internal data

SOLENIS internal data including own and sponsored test reports

The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

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

		Page: 15
SAFETY DATA SHEET		Revision Date: 31.05.2022
		Print Date: 28.12.2022
		SDS Number: 000000083694
PraestoI™ 2540 FLOCCULANT ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries 375550		Version: 2.2

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. This SDS has been prepared by the Solenis Environmental Health and Safety Department.

GB / EN