According to Regulation (EC) No 1907/2006 and its amendments

1. Product and Company Identification

1.1 Product identifiers

Product name: ClayStar 2020
Type of product: Mixture

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

Identified uses: Processing aid for industrial applications.
Uses advised against: None.

1.3 Details of the supplier of the Safety Data Sheet

Sirius-ES Handels GmbH
Bahnhofplatz 3
4600 Wels
Austria
Telephone: +43(0)7242 – 93965660
Telefax: +43(0)7242 – 93965666
e-mail: office@sirius-es.com
Web: www.sirius-es.com

1.4 Emergency telephone number

Germany: Giftnotruf Berlin (Berlin): +49 30 19 240
Austria: Vergiftungszentrale Wien: +43 1 406 43 430

2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No.1272/2008: Not classified.

2.2 GHS Label Elements, including precautionary statements

Labelling according to Regulation (EC) 1272/2008:
Hazard pictogram(s): None.
Signal word: None.
Hazard statement(s): None.
Precautionary statement(s): None.
Additional elements: EUH210 - Safety data sheet available on request

2.3 Other hazards

Spills produce extremely slippery surfaces.
PBT and vPvB assessment:
Not PBT or vPvB according to the criteria of Annex XIII of REACH.

3. Composition/information on ingredients

3.1 Chemical characterization

Not applicable, this product is a mixture.

3.2 Mixtures

This product is a mixture.
Hazardous components:

Warranty - This information is given in good faith and to the best of our knowledge. Every user of our products is responsible as regards observation of all legal regulations including patent laws. Detailed information on handling, and eventual precautions to be observed in the use of the product can be found on our relevant Health and Safety Information Sheet.

Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Concentration/ -range:	20 - 45%
ECHA list number	927-632-8
(Assigned to substances without a CAS N° or other numerical identifier.)	
REACH Registration Number:	01-2119457736-27-XXXX
Classification according to Regulation (EC) No.1272/2008:	Asp. Tox. 1;H304, EUH066

Notes:
Does not result in classification of the mixture if the kinematic viscosity is greater than 20.5 mm²/s measured at 40°C.

Isotridecanol, ethoxylated

Concentration/ -range:	< 5%
EC-No.:	Polymer
REACH Registration Number:	Not applicable (polymer).
Classification according to Regulation (EC) No.1272/2008:	Acute Tox. 4;H302, Eye Dam. 1;H318

Alkanes, C11-15-iso-

Concentration/ -range:	< 3%
ECHA list number	920-901-0
(Assigned to substances without a CAS N° or other numerical identifier.)	
REACH Registration Number:	01-2119456810-40-XXXX
Classification according to Regulation (EC) No.1272/2008:	Asp. Tox. 1;H304, EUH066

Notes:
Does not result in classification of the mixture if the kinematic viscosity is greater than 20.5 mm²/s measured at 40°C.

For explanation of abbreviations see section 16

4. First Aid measures

4.1 Description of first aid measures

Inhalation:
Move to fresh air. No hazards which require special first aid measures.
Skin contact:
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.
Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately.
Ingestion:
Rinse mouth with water. Do NOT induce vomiting. Call a physician or poison control centre immediately.

4.2 Most important symptoms and effects, both acute and delayed

None under normal use.

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4.3 Indication of any immediate medical attention and special treatment needed

None reasonably foreseeable.

Other information:

None.

5. Firefighting measures

5.1 Extinguisher media

Suitable extinguishing media:

Water. Water spray. Foam. Carbon dioxide (CO2). Dry powder.

Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:

None.

5.2 Special hazards arising from substance or mixture

Hazardous decomposition products:

Carbon oxides (COx). Nitrogen oxides (NOx). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3 Advice for firefighters

Protective measures:

Wear self-contained breathing apparatus and protective suit.

Other information:

Spills produce extremely slippery surfaces.

5.4 Further information

None.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions:

Do not touch or walk through spilled material. Spills produce extremely slippery surfaces.

Protective equipment:

Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

Emergency procedures:

Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

6.2 Environmental precautions

Do not contaminate water.

6.3 Methods and materials for containment and cleaning up

Small spills:

Do not flush with water. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:

Dam up. Do not flush with water. Clean up promptly by scoop or vacuum.

Residues:

Soak up with inert absorbent material. *After cleaning*, flush away traces with water.

6.4 Reference to other sections

SECTION 7: Handling and storage

Warranty - This information is given in good faith and to the best of our knowledge. Every user of our products is responsible as regards observation of all legal regulations including patent laws. Detailed information on handling, and eventual precautions to be observed in the use of the product can be found on our relevant Health and Safety Information Sheet.

SECTION 8:	Exposure controls/personal protection
SECTION 13:	Disposal considerations

7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. When using, do not eat, drink or smoke. Renders surfaces extremely slippery when spilled.

7.2 Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material. Incompatible with oxidizing agents.

7.3 Specific end use(s)

This information is not available.

8. Exposure controls / personal protection

8.1 Control parameters

National occupational exposure limits:

None known.

Derived No and Minimum Effect Levels (DNELs/DMELs)

None known.

Predicted no-effect concentrations (PNEC)

None known.

8.2 Exposure controls

Appropriate engineering controls

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Personal protective equipment

Eye/face protection:

Safety glasses with side-shields. No contact lenses.

Skin protection:

- *Hand protection:* PVC or other plastic material gloves.
- *Other:* Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur.

Respiratory protection:

No personal respiratory protective equipment normally required.

Additional advice:

Wash hands before breaks and immediately after handling the product. Wash hands before breaks and at the end of workday.

Environmental exposure controls

Do not allow uncontrolled discharge of product into the environment.

9. Physical and chemical properties

Warranty - This information is given in good faith and to the best of our knowledge. Every user of our products is responsible as regards observation of all legal regulations including patent laws. Detailed information on handling, and eventual precautions to be observed in the use of the product can be found on our relevant Health and Safety Information Sheet.

9.1 Information on basic physical and chemical properties

Appearance:	Viscous liquid, Milky.
Odour:	Aliphatic.
Odour Threshold:	No data available.
pH:	5 - 8 @ 5 g/L
Melting point/freezing point:	< 5°C
Initial boiling point and boiling range:	> 100°C
Flash point:	Does not flash.
Evaporation rate:	No data available.
Flammability (solid, gas):	Not applicable.
Upper/lower flammability or explosive limits:	Not expected to create explosive atmospheres.
Vapour pressure:	2.3 kPa @ 20°C
Vapour density:	0.804 g/litre @ 20°C
Relative density:	1.0 - 1.2
Solubility(ies):	Completely miscible.
Partition coefficient:	Not applicable.
Autoignition temperature:	No data available.
Decomposition temperature:	> 150°C
Viscosity:	> 20.5 mm^2/s @ 40°C
Explosive properties:	Not expected to be explosive based on the chemical structure.
Oxidizing properties:	Not expected to be oxidizing based on the chemical structure.

9.2 Other safety information

None.

10. Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Oxidizing agents may cause exothermic reactions.

10.4 Conditions to avoid

Protect from frost, heat and sunlight.

10.5 Incompatible materials

Incompatible with oxidizing agents.

10.6 Hazardous decomposition products

Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx), hydrogen cyanide (hydrocyanic acid).

11. Toxicological information

11.1 Information on toxicological effects

Warranty - This information is given in good faith and to the best of our knowledge. Every user of our products is responsible as regards observation of all legal regulations including patent laws. Detailed information on handling, and eventual precautions to be observed in the use of the product can be found on our relevant Health and Safety Information Sheet.

Information on the product as supplied:

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg. (Estimated)
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg. (Estimated)
Acute inhalation toxicity:	The product is not expected to be toxic by inhalation.
Skin corrosion/irritation:	Non-irritating to skin.
Serious eye damage/eye irritation:	Not irritating. (OECD 437)
Respiratory/skin sensitization:	Not sensitizing.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	Not carcinogenic.
Reproductive toxicity:	Not toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	No known effect.
Aspiration hazard:	Due to the viscosity, this product does not present an aspiration hazard.

Relevant information on the hazardous components:

Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg. (OECD 401)
Acute dermal toxicity:	LD50/dermal/rabbit > 3160 mg/kg. (OECD 402)
Acute inhalation toxicity:	LC50/inhalation/4 hours/rat > 5000 mg/m3 (OECD 403)
Skin corrosion/irritation:	Not irritating. (OECD 404) Repeated exposure may cause skin dryness or cracking.
Serious eye damage/eye irritation:	Not irritating. (OECD 405)
Respiratory/skin sensitization:	By analogy with similar products, this product is not expected to be sensitizing. (OECD 406)
Mutagenicity:	Not mutagenic. (OECD 471, 474, 475, 476, 483)
Carcinogenicity:	By analogy with similar substances, this substance is not expected to be carcinogenic. Based on the absence of mutagenicity, it is unlikely that the substance is carcinogenic.
Reproductive toxicity:	NOAEL/rat >= 300 ppm. (OECD 421) Prenatal Development Toxicity Study (OECD 414) - NOAEL/Maternal toxicity/rat >= 5220 mg/kg/day - NOAEL/Developmental toxicity/rat >= 5220 mg/kg/day
STOT - single exposure:	No known effects.
STOT - repeated exposure:	No known effects.
Aspiration hazard:	May be fatal if swallowed and enters airways.

Isotridecanol, ethoxylated

Acute oral toxicity:	LD50/oral/rat = 500 - 2000 mg/kg.
Acute dermal toxicity:	LD50/dermal/rabbit > 2000 mg/kg.
Acute inhalation toxicity:	No data available.
Skin corrosion/irritation:	Not irritating. (OECD 404)
Serious eye damage/eye irritation:	Causes serious eye irritation. (OECD 405)

Warranty - This information is given in good faith and to the best of our knowledge. Every user of our products is responsible as regards observation of all legal regulations including patent laws. Detailed information on handling, and eventual precautions to be observed in the use of the product can be found on our relevant Health and Safety Information Sheet.

Respiratory/skin sensitization:	The results of testing on guinea pigs showed this material to be non-sensitizing.
Mutagenicity:	Not mutagenic.
Carcinogenicity:	Not carcinogenic.
Reproductive toxicity:	Two-Generation Reproduction Toxicity (OECD 416) - NOAEL/rat > 250 mg/kg/day Prenatal Development Toxicity Study (OECD 414) - NOAEL/Maternal toxicity/rat > 50 mg/kg/day - NOAEL/Developmental toxicity/rat > 50 mg/kg/day
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	NOAEL/oral/rat/600 days = 50 mg/kg/day
Aspiration hazard:	No known effects.

<u>Alkanes, C11-15-iso-</u>

Acute oral toxicity:	LD50/oral/rat > 5000 mg/kg. (OECD 401)
Acute dermal toxicity:	LD50/dermal/rat > 5000 mg/kg. (OECD 402)
Acute inhalation toxicity:	LC50/inhalation/8 hours/rat > 5000 mg/m3
Skin corrosion/irritation:	Not irritating. (OECD 404) Repeated exposure may cause skin dryness or cracking.
Serious eye damage/eye irritation:	Not irritating. (OECD 405)
Respiratory/skin sensitisation:	The product is not expected to be sensitizing. No respiratory sensitization has been observed in the workplace.
Mutagenicity:	Negative in the Ames Test (OECD 471) Negative in the In vitro Mammalian Cell Gene Mutation Test (OECD 476). Negative in the In Vitro Mammalian Chromosome Aberration Test (OECD 473). Negative in the Rodent Dominant Lethal Test (OECD 478).
Carcinogenicity:	By analogy with similar substances, this substance is not expected to be carcinogenic.
Reproductive toxicity:	By analogy with similar substances, this substance is not expected to be toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	NOAEL/oral/rat/90 days >= 3000 mg/kg mg/kg/day (OECD 408) (Based on results obtained from tests on analogous products)
Aspiration hazard:	May be fatal if swallowed and enters airways.

12. Ecological information

12.1 Toxicity

<u>Information on the product as supplied:</u>

Acute toxicity to fish:	LC50/Oncorhynchus mykiss/96 hours > 100 mg/L. (Estimated) LC50/Danio rerio/96 hours > 100 mg/L (Estimated)
Acute toxicity to invertebrates:	EC50/Daphnia magna/48 hours > 100 mg/L. (Estimated)
Acute toxicity to algae:	IC50/Algae/72 hours > 100 mg/L (Estimated)

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Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	No data available.
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

Relevant information on the hazardous components:

Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Acute toxicity to fish:	LC50/Fish/96 hours > 1028 mg/L
Acute toxicity to invertebrates:	EC50/Invertebrates/48 hours > 3193 mg/L
Acute toxicity to algae:	IC50/Algae/72 hours = 993 mg/L
Chronic toxicity to fish:	NOEC/Oncorhynchus mykiss/28 days > 1000 mg/L (Estimated)
Chronic toxicity to invertebrates:	NOEC/Daphnia magna/21 days > 1000 mg/L (Estimated)
Toxicity to microorganisms:	EC50/activated sludge/3 hours > 100 mg/L (OECD 209)
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

Isotridecanol, ethoxylated

Acute toxicity to fish:	LC50/Cyprinus carpio/96 hours = 1 - 10 mg/L (OECD 203)
Acute toxicity to invertebrates:	EC50/Daphnia/48 hours = 1 - 10 mg/L (OECD 202)
Acute toxicity to algae:	IC50/Desmodesmus subspicatus/72 hours = 1 - 10 mg/L (OECD 201)
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	No data available.
Toxicity to microorganisms:	EC10/activated sludge/17 hours > 10000 mg/L (DIN 38412-8)
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	No data available.

Alkanes, C11-15-iso-

Acute toxicity to fish:	LC0/Oncorhynchus mykiss/96 hours > 1000 mg/L.
Acute toxicity to invertebrates:	EC0/Daphnia magna/48 hours > 1000 mg/L.
Acute toxicity to algae:	IC0/Pseudokirchneriella subcapitata/72 hours > 1000 mg/L.
Chronic toxicity to fish:	No data available.
Chronic toxicity to invertebrates:	NOEC/Daphnia magna/21 days = 1 mg/L
Toxicity to microorganisms:	No data available.
Effects on terrestrial organisms:	No data available.
Sediment toxicity:	Exposure to sediment is unlikely.

12.2 Persistence and degradability

Information on the product as supplied:

Degradation:	Not readily biodegradable.
Hydrolysis:	Does not hydrolyse.
Photolysis:	No data available.

Relevant information on the hazardous components:

Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Degradation:	Readily biodegradable. 82% / 24 days (OECD 301 F) ; 74% / 28 days (OECD 306)

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Hydrolysis:	Does not hydrolyse.
Photolysis:	Half-life: 0.254 - 0.850 days

Isotridecanol, ethoxylated

Degradation:	Readily biodegradable. > 60% / 28 days (OECD 301 B)
Hydrolysis:	Does not hydrolyse.
Photolysis:	No data available.

Alkanes, C11-15-iso-

Degradation:	Inherently biodegradable. 31.5% / 28 days (OECD 301)
Hydrolysis:	Does not hydrolyse.
Photolysis:	No data available.

12.3 Bioaccumulative potential

Information on the product as supplied:

The product is not expected to bioaccumulate.

Partition co-efficient (Log Pow):	Not applicable.
Bioconcentration factor (BCF):	No data available.

Relevant information on the hazardous components:

Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Partition co-efficient (Log Pow):	No data available.
Bioconcentration factor (BCF):	No data available.

Isotridecanol, ethoxylated

Partition co-efficient (Log Pow):	> 3
Bioconcentration factor (BCF):	No data available.

Alkanes, C11-15-iso-

Partition co-efficient (Log Pow):	No data available.
Bioconcentration factor (BCF):	No data available.

12.4 Mobility in soil

Information on the product as supplied:

No data available.

Relevant information on the hazardous components:

Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Koc:	No data available.

Isotridecanol, ethoxylated

Koc:	>5000

Alkanes, C11-15-iso-

Koc:	No data available.

12.5 Results of PBT and vPvB assessment

PBT assessment:

Not PBT according to the criteria of Annex XIII of REACH.

vPvB assessment:

Not vPvB according to the criteria of Annex XIII of REACH.

12.6 Other adverse effects

None.

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13. Disposal considerations

13.1 Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations.

Contaminated packaging:

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations. Can be landfilled or incinerated, when in compliance with local regulations.

Recycling:

In accordance with local and national regulations.

14. Transport information

14.1 UN number

Not classified.

14.2 UN proper shipping name

Not classified.

14.3 Transport hazard class(es)

Not classified.

14.4 Packing group

Not classified.

14.5 Environmental hazards

Not classified.

14.6 Special precautions for user

None.

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

Not classified.

14.8 Additional information

None.

15. Regulatory information

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

All components of this product have been registered or pre-registered with the European Chemicals Agency or are exempt from registration.

15.2 Chemical Safety assessment

A Chemical Safety Assessment for this product has been carried out. All relevant information used to conduct this assessment are included in this Safety Data Sheet as well any as any resulting Risk Reduction Measures.

16. Other information

Warranty - This information is given in good faith and to the best of our knowledge. Every user of our products is responsible as regards observation of all legal regulations including patent laws. Detailed information on handling, and eventual precautions to be observed in the use of the product can be found on our relevant Health and Safety Information Sheet.

This data sheet contains changes from the previous version in section(s):

SECTION 5.	Fire-fighting measures
SECTION 8.	Exposure controls/personal protection
SECTION 12.	Ecological information
SECTION 15.	Regulatory information
SECTION 16.	Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet:

Acronyms

PBT = persistent, bioaccumulative and toxic
STOT = Specific target organ toxicity
vPvB = very persistent and very bioaccumulative

Abbreviations

Acute Tox. 4 = Acute toxicity,Hazard Category 4
Asp. Tox. 1 = Aspiration hazard, Hazard Category 1
Eye Dam 1 = Serious eye damage/eye irritation, Hazard Category 1

Hazard statements

H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H318 - Causes serious eye damage
EUH066 - Repeated exposure may cause skin dryness or cracking

This SDS was prepared in accordance with the following:

Regulation (EC) N°1907/2006, as amended
Regulation (EC) N°1272/2008, as amended

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.

ANNEX(ES)

This product is not hazardous as supplied and/or does not contain hazardous components:

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- which require REACH registration; or,
- which demonstrate relevant effects which would require a chemical safety assessment; or,
- which are present at concentrations above their cut-off value.

Therefore, according to Regulation (EC) No 1907/2006, Article 31, paragraph 7, an Exposure Scenario is not required as an annex to the Safety Data Sheet.

Warranty - This information is given in good faith and to the best of our knowledge. Every user of our products is responsible as regards observation of all legal regulations including patent laws. Detailed information on handling, and eventual precautions to be observed in the use of the product can be found on our relevant Health and Safety Information Sheet.