

In accordance with the Standard for Classification and Labelling of Chemical Substance and Material Safety Data Sheet, Article 10 Paragraph

SAFETY DATA SHEET

Chartek 1620CSP Part B

Section 1. Chemical product and company identification

A. Product name : Chartek 1620CSP Part B

Product code : HCA165

B. Relevant identified uses of the substance or mixture and uses advised against

| Identified uses | | | |
|---|--------|--|--|
| Professional application of coatings and inks | | | |
| Uses advised against | Reason | | |
| All Other Uses | | | |

C. Manufacturer : International Farg AB

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Aspereds Industriomrade SE-424 22 Angered

Sweden

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Emergency telephone number (with hours of

operation)

e-mail address of person responsible for this SDS

: +46 8 33 12 31

: sdsfellinguk@akzonobel.com

Section 2. Hazards identification

A. Hazard classification : SKIN CORROSION/IRRITATION - Category 2

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

SKIN SENSITIZATION - Category 1

B. GHS label elements, including precautionary statements

Symbol





Signal word : Danger

Hazard statements : Causes serious eye damage.

Causes skin irritation.

May cause an allergic skin reaction.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Avoid breathing dust. Wash

hands thoroughly after handling. Contaminated work clothing should not be allowed

out of the workplace.

: IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Response

Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. 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 or physician.

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Section 2. Hazards identification

Storage

: Not applicable.

: None known.

Disposal

: Dispose of contents and container in accordance with all local, regional, national

and international regulations.

Supplemental label

elements

: Wear appropriate respirator when ventilation is inadequate.

C. Other hazards which do

not result in classification

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

| Ingredient name | Common name | CAS number | % | Classification |
|--|-------------------------------------|-------------|-----------|--|
| Fatty acids, C18-unsatd., dimers, compds. with polyethylenepolyamine-tall-oil fatty acid reaction products | polyethylenepolyamine tall oil | 64754-99-0 | ≥60 - <70 | Eye Dam. 1, H318 |
| Man-made vitreous (silicate) fibres | Man-made vitreous (silicate) fibres | 287922-11-6 | <10 | Skin Irrit. 2, H315 |
| titanium dioxide | Titanium dioxide | 13463-67-7 | ≥1 - <5 | Not classified. |
| 3,6, 9-triazaundecamethylenediamine | tetraethylenepentamine | 112-57-2 | <10 | Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1, H314 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411 |

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

- A. Eye contact
- : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- **B.** Skin contact
- : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

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Section 4. First-aid measures

C. Inhalation

: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

D. Ingestion

: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

E. Notes to physician

: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments

: No specific treatment.

Protection of first-aiders

: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

A. Extinguishing media

Suitable extinguishing

media

: Use an extinguishing agent suitable for the surrounding fire.

: Decomposition products may include the following materials:

Unsuitable

extinguishing media

: None known.

B. Specific hazards arising

from the chemical

Hazardous thermal decomposition products

: No specific fire or explosion hazard.

carbon dioxide carbon monoxide

nitrogen oxides metal oxide/oxides

C. Special protective equipment for firefighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Special precautions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

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Section 6. Accidental release measures

- A. Personal precautions, protective equipment and emergency procedures
- : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- B. Environmental precautions
- : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- C. Methods and material for containment and cleaning up

Small spill

: Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill

: Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

A. Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

- : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- B. Conditions for safe storage, including any incompatibilities
- : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

A. Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits | |
|------------------|--|--|
| titanium dioxide | Ministry of Labor (Republic of Korea, 8/2013). | |
| | TWA: 10 mg/m³ 8 hours. Form: total dust with less than 1% of free SiO2 | |

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Section 8. Exposure controls/personal protection

controls

Appropriate engineering: If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

C. Personal protective equipment

Respiratory protection

: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Eye protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Hand protection

: Use chemical resistant gloves classified under Standard EN 374: Protective gloves against chemicals and micro-organisms. Recommended: Viton® or Nitrile gloves. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment. 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. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 9. Physical and chemical properties

A. Appearance

Physical state : Solid. Colour : White. B. Odour Amine-like : Not available. C. Odour threshold D. pH : Not applicable. E. Melting/freezing point : Not available. F. Boiling point/boiling : Not available.

range

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: Closed cup: 200°C (392°F) G. Flash point

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Section 9. Physical and chemical properties

H. Evaporation rate : Not available.

Flammability (solid, gas) : Not available. J. Lower and upper : Not available.

explosive (flammable)

limits

K. Vapour pressure : Not available.

L. Solubility : Insoluble in the following materials: cold water.

M. Vapour density : Not available.

N. Relative density : 1.17

O. Partition coefficient: n-

octanol/water

: Not available.

P. Auto-ignition

temperature

: Not available.

Q. Decomposition

temperature

: Not available.

R. Viscosity : Kinematic (room temperature): 999 mm²/s (999 cSt)

S. Molecular weight : Not applicable.

Section 10. Stability and reactivity

A. Chemical stability The product is stable.

Possibility of hazardous

reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

B. Conditions to avoid : No specific data.

C. Incompatible materials : No specific data.

D. Hazardous : Under normal conditions of storage and use, hazardous decomposition products

should not be produced. decomposition products

Section 11. Toxicological information

A. Information on the likely : Not available. routes of exposure

Potential acute health effects

Inhalation : May give off gas, vapour or dust that is very irritating or corrosive to the respiratory

system. Exposure to decomposition products may cause a health hazard. Serious

effects may be delayed following exposure.

Ingestion : Irritating to mouth, throat and stomach.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Eye contact : Causes serious eye damage.

Over-exposure signs/symptoms

Inhalation : No specific data.

Ingestion : Adverse symptoms may include the following:

stomach pains

Skin contact : Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

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Section 11. Toxicological information

Eye contact : A

: Adverse symptoms may include the following: pain watering redness

B. Health hazards

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|--|-------------|---------|------------|----------|
| 3,6, 9-triazaundecamethylenediamine | LD50 Dermal | Rabbit | 660 uL/kg | - |
| · | LD50 Oral | Rat | 3990 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|--|--------------------------|---------|-------|---|-------------|
| titanium dioxide | Skin - Mild irritant | Human | - | 72 hours 300 Micrograms Intermittent | - |
| 3,6, 9-triazaundecamethylenediamine | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 milligrams | - |
| | Eyes - Moderate irritant | Rabbit | _ | 5 milligrams | - |
| | Skin - Severe irritant | Rabbit | - | 24 hours 5 milligrams | _ |
| | Skin - Severe irritant | Rabbit | - | 495 milligrams | - |

Sensitisation

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Potential chronic health effects

Chronic toxicity

Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed

to very low levels.

Carcinogenicity: No known significant effects or critical hazards.

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Section 11. Toxicological information

Mutagenicity : No known significant effects or critical hazards. **Teratogenicity** : No known significant effects or critical hazards. **Developmental effects** : No known significant effects or critical hazards. **Fertility effects** : No known significant effects or critical hazards.

ATE value

| Route | Result |
|--------|---------------|
| Oral | 41122.3 mg/kg |
| Dermal | 90469 mg/kg |

Section 12. Ecological information

A. Ecotoxicity

Not available.

B. Persistence and degradability

Not available.

C. Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| titanium dioxide | - | 352 | low |

D. Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

E. Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

A. Disposal methods

: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

B. Disposal precautions

: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.



Section 14. Transport information

| | UN | IMDG | IATA |
|----------------------------------|----------------|----------------|----------------|
| A. UN number | Not regulated. | Not regulated. | Not regulated. |
| B. UN proper shipping name | - | - | - |
| C. Transport hazard class(es) | - | - | - |
| D. Packing group | - | - | - |
| E. Environmental hazards | No. | No. | No. |
| F. Additional information | - | - | - |

IMDG Code Segregation

group

: Not applicable.

Special precautions for user : Transport within user's premises: always transport in closed containers that are

upright and secure. Ensure that persons transporting the product know what to do in

the event of an accident or spillage.

Section 15. Regulatory information

A. Regulation according to ISHA

ISHA Article 37 : None of the components are listed. **ISHA Article 38** : None of the components are listed.

Article 2 of Youth : Not applicable.

Protection Act on Substances Hazardous

to Youth

Exposure Limits of Chemical Substances and Physical Factors

The following components have an OEL:

titanium dioxide

Exposure Standards

established for Harmful

Factors

: None of the components are listed.

Harmful Factors Subject : The following components are listed: Titanium dioxide

to Work Environment Measurement

to Special Health Check-

Harmful Factors Subject: None of the components are listed.

Hazardous Substances

Subject to Control

: The following components are listed: Titanium dioxide

B. Regulation according to TCCA

TCCA Toxic chemicals : Not applicable

TCCA Observational

chemicals

: None of the components are listed.

TCCA Article 32

(Banned)

: None of the components are listed.

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Section 15. Regulatory information

TCCA Article 32

: None of the components are listed.

(Restricted)

TCCA Article 17 (TRI) : None of the components are listed.

Korea inventory

: Not determined.

Accident Precaution

chemicals

: None of the components are listed.

C. Dangerous Materials **Safety Management Act** : Not available.

D. Wastes regulation

: Dispose of contents and container in accordance with all local, regional, national

and international regulations.

E. Regulation according to other foreign laws

Europe inventory United States inventory

: Not determined. : Not determined.

(TSCA 8b)

Japan inventory Safety, health and : Not determined.

environmental

: No known specific national and/or regional regulations applicable to this product (including its ingredients).

regulations specific for

the product

Section 16. Other information

A. References : Not available. B. Date of issue/Date of

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D. Other

Indicates information that has changed from previously issued version.

Key to abbreviations : ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

Notice to reader

IMPORTANT NOTE: the information contained in this data sheet (as may be amended from time to time) is not intended to be exhaustive and is presented in good faith and believed to be correct as of the date on which it is prepared. It is the user's responsibility to verify that this data sheet is current prior to using the product to which it relates.

Persons using the information must make their own determinations as to the suitability of the relevant product for their purposes prior to use. Where those purposes are other than as specifically recommended in this safety data sheet, then the user uses the product at their own risk.

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Section 16. Other information

of or in any way connected to the storage, handling, use or disposal of the product. Safe handling, storage, use and disposal are the responsibility of the users. Users must comply with all applicable health and safety laws.

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