SAFETY DATA SHEET

Chartek 7E Grey Part A

Section 1. Identification

Chartek 7E Grey Part A : **GHS product identifier**

HCA764 : **Product code**

Identified uses
Professional application of coatings and inks

Uses advised against	Reason
All Other Uses	

AkzoNobel Saudi Arabia Ltd.
PO Box 37
Dammam 31411
Saudi Arabia

Tel: +966 3 812 1044 Fax: +966 3 812 1169

: Supplier's details

+966 3 812 1044 : **Emergency telephone number (with hours of operation)**

+966 55 388 0087 : **National advisory body/ Poison Centre (For use only by licensed medical professionals.)**

sdsfellinguk@akzonobel.com : **e-mail address of person responsible for this SDS**

Section 2. Hazards identification

SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
TOXIC TO REPRODUCTION (Fertility) - Category 1B
TOXIC TO REPRODUCTION (Unborn child) - Category 1B
ACUTE AQUATIC HAZARD - Category 2
LONG-TERM AQUATIC HAZARD - Category 2

: **Classification of the substance or mixture**

GHS label elements

: **Hazard pictograms**

Danger : **Signal word**

Causes serious eye irritation. : **Hazard statements**
Causes skin irritation.
May cause an allergic skin reaction.
May damage fertility or the unborn child.
Toxic to aquatic life with long lasting effects.

Precautionary statements

Section 2. Hazards identification

Prevention :
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Avoid release to the environment. Avoid breathing dust. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response :
Collect spillage. IF exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it 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. If eye irritation persists: Get medical attention.

Storage :
Store locked up.

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.

Other hazards which do not result in classification :
None known.

Section 3. Composition/information on ingredients

Substance/mixture :
Mixture

Classification	CAS number	% by weight	Ingredient name
Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	25068-38-6	≥25 - ≤50	reaction product: bisphenol-A-(epichlorhydrin); epoxy resin
Repr. 1B, H360FD (Fertility and Unborn child)	10043-35-3	≥25 - ≤50	boric acid
Aquatic Acute 1, H400 Aquatic Chronic 1, H410	7779-90-0	≤5	trizinc bis(orthophosphate)
Aquatic Acute 1, H400 Aquatic Chronic 1, H410	-	≤3	4-tert-butylphenyl diphenyl phosphate bis (4-tert-butylphenyl) phenyl phosphate triphenyl phosphate

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

Description of necessary first aid measures

Eye contact :
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. Get medical attention.

Inhalation :
Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Seek medical attention. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. 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.

Section 4. First aid measures

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. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.	: **Skin contact**
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. Get medical attention. 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.	: **Ingestion**

Most important symptoms/effects, acute and delayed

Potential acute health effects

Causes serious eye irritation.	: **Eye contact**
No known significant effects or critical hazards.	: **Inhalation**
Causes skin irritation. May cause an allergic skin reaction.	: **Skin contact**
Irritating to mouth, throat and stomach.	: **Ingestion**

Over-exposure signs/symptoms

Adverse symptoms may include the following: pain or irritation watering redness	: **Eye contact**
Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations	: **Inhalation**
Adverse symptoms may include the following: irritation redness reduced foetal weight increase in foetal deaths skeletal malformations	: **Skin contact**
Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations	: **Ingestion**

Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.	: **Notes to physician**
No specific treatment.	: **Specific treatments**
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.	: **Protection of first-aiders**

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Use an extinguishing agent suitable for the surrounding fire.	: **Suitable extinguishing media**
None known.	: **Unsuitable extinguishing media**
This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.	: **Specific hazards arising from the chemical**
Decomposition products may include the following materials: carbon dioxide carbon monoxide phosphorus oxides halogenated compounds metal oxide/oxides	: **Hazardous thermal decomposition products**
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.	: **Special protective actions for fire-fighters**
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.	: **Special protective equipment for fire-fighters**

Section 6. Accidental release measures

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.	: **For non-emergency personnel**
If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".	: **For emergency responders**
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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.	: **Environmental precautions**

Methods and material for containment and cleaning up

Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.	: **Small 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.	: **Large spill**

Section 7. Handling and storage

Precautions for safe handling

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. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. 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. Dry sanding, flame cutting and/or welding of the dry paint film will give rise to dust and/or hazardous fumes. Wet sanding/flatting should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used.

: **Protective measures**

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.

: **Advice on general occupational hygiene**

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.

: **Conditions for safe storage, including any incompatibilities**

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Exposure limits	Ingredient name
ACGIH TLV (United States, 3/2015). STEL: 6 mg/m³ 15 minutes. Form: Inhalable fraction TWA: 2 mg/m³ 8 hours. Form: Inhalable fraction	boric acid

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.

: **Appropriate engineering 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.

: **Environmental exposure controls**

Individual protection 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.

: **Hygiene measures**

Section 8. Exposure controls/personal 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. Use eye protection according to EN 166, designed to protect against liquid splashes. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.	: **Eye/face protection**

Skin 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.	: **Hand 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.	: **Body protection**
Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.	: **Other skin 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.	: **Respiratory protection**

Section 9. Physical and chemical properties

Appearance

Solid.	: **Physical state**
Grey.	: **Colour**
Solvent.	: **Odour**
Not available.	: **Odour threshold**
Not applicable.	: **pH**
Not available.	: **Melting point**
Not available.	: **Boiling point**
Closed cup: 101°C (213.8°F)	: **Flash point**
Not available.	: **Evaporation rate**
Not available.	: **Flammability (solid, gas)**
Not available.	: **Lower and upper explosive (flammable) limits**
Not available.	: **Vapour pressure**
Not available.	: **Vapour density**
1.46	: **Relative density**
Insoluble in the following materials: cold water.	: **Solubility**
Not available.	: **Partition coefficient: n-octanol/water**
Not available.	: **Auto-ignition temperature**

Section 9. Physical and chemical properties

Not available. : **Decomposition temperature**

Kinematic (room temperature): 6485000 mm^2/s (6485000 cSt) : **Viscosity**

Section 10. Stability and reactivity

No specific test data related to reactivity available for this product or its ingredients. : **Reactivity**

The product is stable. : **Chemical stability**

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

No specific data. : **Conditions to avoid**

No specific data. : **Incompatible materials**

Under normal conditions of storage and use, hazardous decomposition products should not be produced. : **Hazardous decomposition products**

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Observation	Exposure	Score	Species	Result	Product/ingredient name
-	100 milligrams	-	Rabbit	Eyes - Mild irritant	reaction product: bisphenol-A-(epichlorhydrin); epoxy resin
-	24 hours 500 microliters	-	Rabbit	Skin - Moderate irritant	
-	24 hours 2 milligrams	-	Rabbit	Skin - Severe irritant	
-	72 hours 15 milligrams Intermittent	-	Human	Skin - Mild irritant	boric acid

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.

Section 11. Toxicological information

Aspiration hazard

Not available.

Not available.	: **Information on likely routes of exposure**

Potential acute health effects

Causes serious eye irritation.	: **Eye contact**
No known significant effects or critical hazards.	: **Inhalation**
Causes skin irritation. May cause an allergic skin reaction.	: **Skin contact**
Irritating to mouth, throat and stomach.	: **Ingestion**

Symptoms related to the physical, chemical and toxicological characteristics

Adverse symptoms may include the following: pain or irritation watering redness	: **Eye contact**
Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations	: **Inhalation**
Adverse symptoms may include the following: irritation redness reduced foetal weight increase in foetal deaths skeletal malformations	: **Skin contact**
Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations	: **Ingestion**

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Not available.	: **Potential immediate effects**
Not available.	: **Potential delayed effects**

Long term exposure

Not available.	: **Potential immediate effects**
Not available.	: **Potential delayed effects**

Potential chronic health effects

Not available.

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.	: **General**
No known significant effects or critical hazards.	: **Carcinogenicity**
No known significant effects or critical hazards.	: **Mutagenicity**
May damage the unborn child.	: **Teratogenicity**
No known significant effects or critical hazards.	: **Developmental effects**
May damage fertility.	: **Fertility effects**

Numerical measures of toxicity

Section 11. Toxicological information

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Exposure	Species	Result	Product/ingredient name
48 hours	Crustaceans - Americamysis bahia - Juvenile (Fledgling, Hatchling, Weanling)	Acute LC50 84.28 mg/l Marine water	boric acid
48 hours	Daphnia - Daphnia magna - Neonate	Acute LC50 133000 µg/l Fresh water	
96 hours	Fish - Ptychocheilus lucius - Juvenile (Fledgling, Hatchling, Weanling)	Acute LC50 100000 µg/l Fresh water	
21 days	Daphnia - Daphnia magna	Chronic NOEC 6000 µg/l Fresh water	
87 days	Fish - Oncorhynchus mykiss	Chronic NOEC 2100 µg/l Fresh water	
48 hours	Daphnia - Daphnia magna	Acute EC50 1.08 mg/l Fresh water	trizinc bis(orthophosphate)
72 hours	Algae - Selenastrum capricornutum	Acute IC50 0.136 mg/l	
96 hours	Fish - Oncorhynchus mykiss	Acute LC50 0.09 mg/l Fresh water	
48 hours	Daphnia - Daphnia magna	Chronic NOEC 1.08 mg/l Fresh water	
25 days	Fish - Oncorhynchus mykiss - Adult	Chronic NOEC 0.036 mg/l Fresh water	

Persistence and degradability

Biodegradability	Photolysis	Aquatic half-life	Product/ingredient name
Not readily	-	-	trizinc bis(orthophosphate)

Bioaccumulative potential

Potential	BCF	$LogP_{ow}$	Product/ingredient name
low	31	2.64 to 3.78	reaction product: bisphenol-A-(epichlorhydrin); epoxy resin
low	-	-1.09	boric acid

Mobility in soil

Not available. : **Soil/water partition coefficient (K_{OC})**

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

Section 13. Disposal considerations

: **Disposal methods**

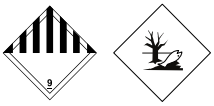
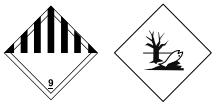
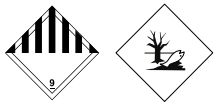
The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

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. This material and its container must be disposed of in a safe way.

Section 13. Disposal considerations

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

IATA	IMDG	UN	
UN3077	UN3077	UN3077	**UN number**
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin); epoxy resin, trizinc bis(orthophosphate))	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin); epoxy resin, trizinc bis(orthophosphate)). Marine pollutant	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin); epoxy resin, trizinc bis(orthophosphate))	**UN proper shipping name**
9 	9 	9 	**Transport hazard class(es)**
III	III	III	**Packing group**
Yes.	Yes.	Yes.	**Environmental hazards**
This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.	**Additional information**

Not applicable. : **IMDG Code Segregation group**

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. : **Special precautions for user**

Not available. : **Transport in bulk according to Annex II of Marpol and the IBC Code**

Section 15. Regulatory information

No known specific national and/or regional regulations applicable to this product (including its ingredients). : **Safety, health and environmental regulations specific for the product**

Section 16. Other information

Justification

Justification	Classification
Calculation method	Skin Irrit. 2, H315
Calculation method	Eye Irrit. 2A, H319
Calculation method	Skin Sens. 1, H317
Calculation method	Repr. 1B, H360 (Fertility)
Calculation method	Repr. 1B, H360 (Unborn child)
Calculation method	Aquatic Acute 2, H401
Calculation method	Aquatic Chronic 2, H411

History

09/08/2018 : **Date of printing**

09/08/2018 : **Date of issue/Date of revision**

No previous validation : **Date of previous issue**

1 : **Version**

ATE = Acute Toxicity Estimate : **Key to abbreviations**
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 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Not available. : **References**

Indicates information that has changed from previously issued version.

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.

MANUFACTURER'S DISCLAIMER: the conditions, methods and factors affecting the handling, storage, application, use and disposal of the product are not under the control and knowledge of the manufacturer. Therefore the manufacturer does not assume responsibility for any adverse events which may occur in the handling, storage, application, use, misuse or disposal of the product and, so far as permitted by applicable law, the manufacturer expressly disclaims liability for any and all loss, damages and/or expenses arising out 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.

Unless we have agreed to the contrary, all products are supplied by us subject to our standard terms and conditions of business, which include limitations of liability. Please make sure to refer to these and / or the relevant agreement which you have with AkzoNobel (or its affiliate, as the case may be).