



For Sales and Support call 1-800-345-8207

Replacement Desiccant

General Air Products Part Number: 34006

Safety Data Sheet



SorbeadTM Orange CHAMELEON[®]

Indicating silica gel for moisture control

Product Information

Elevating form, function and performance... with Sorbead

General SorbeadTM Orange CHAMELEON[®] indicating silica gel is the newest adsorbent technology from Engelhard. Sorbead Orange CHAMELEON is used where processes and products need to be protected from the negative consequences of humidity and moisture.

High-performing and economical moisture control

As part of the General Sorbead adsorbent family, Sorbead Orange CHAMELEON is an alumino silica gel formed in hard, spherical beads with a very high resistance to crushing and a low attrition rate. All Sorbead adsorbents have a longer life than most other adsorbents and can reduce operating costs in most applications. Typical applications include:

- ★ Transformer (air breather) – protects transformer oil from ambient moisture
- ★ Tank and silo breather filters – protects moisture sensitive goods from humidity
- ★ Laboratory uses – desiccators, U-pipes and drying towers

- ★ Packaging of moisture sensitive goods
- ★ Emissions and immissions measurement installations
- ★ Gas drying in closed circuits such as hydrogen in power plants for turbines and leakage indication
- ★ Wide variety of customized applications including solid drying, flower drying, conservation of boats, cars and many more

Industrial-strength protection with improved indicator functionality

Similar to our Sorbead R adsorbent, General Sorbead Orange CHAMELEON is a beaded silica gel with very high mechanical integrity. It meets the demand for a heavy-metal free and environmental friendly indicating agent.

With a new and improved indicator, General Sorbead Orange CHAMELEON provides safe moisture indication without any concerns regarding carcinogenic ingredients. It also provides superior moisture indication with a crisp color change.

The degree of moisture uptake is indicated by a color change from orange

to colorless at approx. 6 wt % water content. However, it continues to adsorb water from this point until reaching its maximum capacity.

General Sorbead Orange CHAMELEON regains its full adsorption capacity when regenerated. Its unique formulation ensures advanced stability against harmful UV-rays.

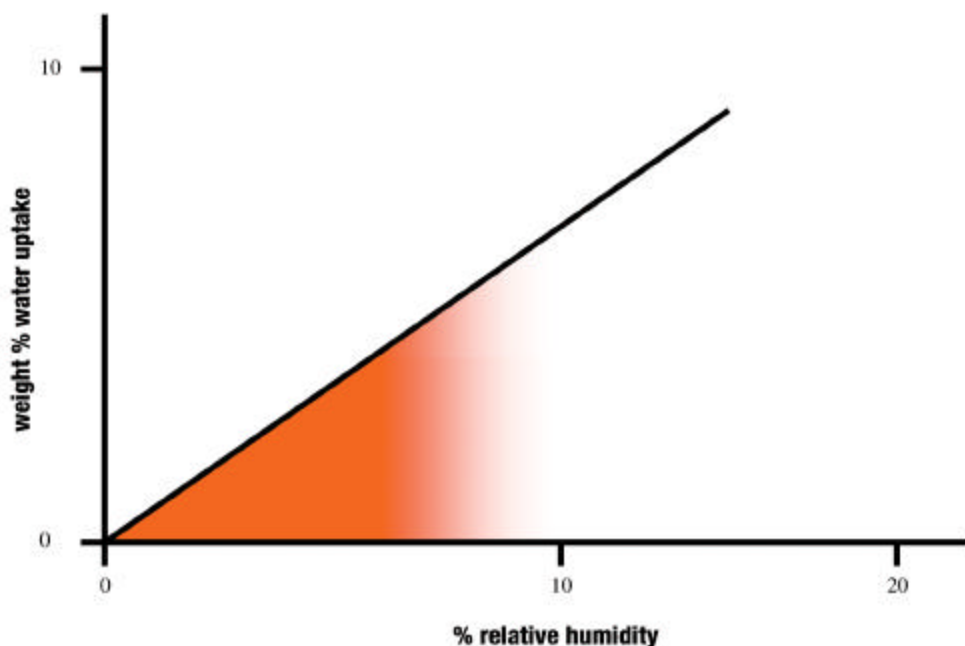
Typical bead size distribution

- ★ 2.0 – 5.0 mm

Typical properties

Surface area (BET)	700 m ² /g	
Pore volume	0.4 cm ³ /g	
Equilibrium capacity for water vapor at 25°C	10 % r.H.	6 wt.%
	80 % r.H.	40 wt.%
Packed bulk density	0.7 – 0.8 kg/l	
Crushing strength	> 200 N	
Attrition rate	< 0.05 wt.%	
Color when dry	Deep orange	
Color when wet	Translucent	
Moisture Content	< 1 wt.%	

Lab data on water vapor adsorption



Please call with any questions

1-800-345-8207

or visit our web site

www.GENERALAIRPRODUCTS.com

Safety Data Sheet

Sorbead® ORANGE CHAMELEON 2050

Revision date : 2010/08/23

Version: 1.0

Page: 1/7

(30500139/SDS_GEN_US/EN)

1. Product and Company Identification

Use: Solid material for drying of liquids and gases

Company

BASF CORPORATION
100 Campus Drive
Florham Park, NJ 07932, USA

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP

2. Hazards Identification

Emergency overview**CAUTION:**

May cause irritation.

MAY CAUSE SKIN IRRITATION.

MAY CAUSE RESPIRATORY TRACT IRRITATION.

MAY CAUSE PAIN, NAUSEA, VOMITING AND DIARRHEA.

May result in coughing and/or sore throat.

PROLONGED OR REPEATED EXPOSURE TO DUST MAY CAUSE PULMONARY PROBLEMS.

INGESTION MAY CAUSE GASTRIC DISTURBANCES.

State of matter: solid

Colour: colourless to orange

Odour: odourless

Potential health effects**Primary routes of exposure:**

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

Virtually nontoxic after a single ingestion.

Irritation / corrosion:

Not irritating to the eyes. Not irritating to the skin.

Sensitization:

No sensitizing effect.

Chronic toxicity:

Safety Data Sheet

Sorbead® ORANGE CHAMELEON 2050

Revision date : 2010/08/23
Version: 1.0

Page: 2/7
(30500139/SDS_GEN_US/EN)

Genotoxicity: Mutagenicity tests revealed no genotoxic potential.

Potential environmental effects

Aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. The product has not been tested. The statement has been derived from products of a similar structure and composition.

3. Composition / Information on Ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
1327-36-2	98.5 %	Aluminatesilicate

4. First-Aid Measures

General advice:

No hazards anticipated.

If inhaled:

Keep patient calm, remove to fresh air. If breathing difficulties develop, aid in breathing and seek immediate medical attention.

If on skin:

After contact with skin, wash immediately with plenty of water. If symptoms persist, seek medical advice.

If in eyes:

Flush with copious amounts of water for at least 15 minutes. If symptoms persist, seek medical advice.

If swallowed:

If swallowed, drink plenty of water. Obtain medical attention.

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Flash point:		Non-flammable.
Flammability:	not highly flammable	
Self-ignition temperature:		not self-igniting not self-igniting

Suitable extinguishing media:

carbon dioxide, dry powder, foam, water spray

Hazards during fire-fighting:

No particular hazards known.

Further information:

Use standard procedure for chemical fires. Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered.

Safety Data Sheet

Sorbead® ORANGE CHAMELEON 2050

Revision date : 2010/08/23

Version: 1.0

Page: 3/7

(30500139/SDS_GEN_US/EN)

6. Accidental release measures

Personal precautions:

Wear suitable personal protective clothing and equipment. Avoid contact with skin and eyes. Avoid dust formation.

Environmental precautions:

Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

Cleanup:

Contain spillage. Sweep up or vacuum small pieces and dusts and place in appropriate container for disposal. Reclaim for processing if possible. Avoid raising dust.

Further information:

Forms slippery surfaces with water.

7. Handling and Storage

Handling

General advice:

Contaminated surfaces will be extremely slippery.

Protection against fire and explosion:

Do not handle in flammable atmospheres.

Storage

General advice:

Protect against moisture. Keep container tightly closed and dry. Keep in a cool place. Protect against contamination.

Storage incompatibility:

General advice: Keep away from water.

8. Exposure Controls and Personal Protection

Personal protective equipment

Respiratory protection:

Wear appropriate certified respirator when exposure limits may be exceeded. Particle filter with low efficiency for solid particles (e.g. EN 143 or 149, Type P1 or FFP1)

Hand protection:

Wear chemical resistant protective gloves.

Eye protection:

Safety glasses with side-shields.

Body protection:

light protective clothing

9. Physical and Chemical Properties

Form:

beads

Safety Data Sheet

Sorbead® ORANGE CHAMELEON 2050

Revision date : 2010/08/23

Page: 4/7

Version: 1.0

(30500139/SDS_GEN_US/EN)

Odour:	odourless	
Colour:	colourless to orange	
pH value:	4 - 8	(100 g/kg) (as suspension)
Melting point:	< 1,000 °C	Literature data.
Boiling point:		dropped
Vapour pressure:		(20 °C) negligible
Bulk density:	400 - 900 kg/m3	
Partitioning coefficient n-octanol/water (log Pow):		not applicable
Viscosity, dynamic:		not applicable
Solubility in water:		(20 °C) practically insoluble

10. Stability and Reactivity

Conditions to avoid:

Avoid electro-static discharge.

Substances to avoid:

combustible gases/vapours

Hazardous reactions:

The product is chemically stable.

Addition of water leads to increase in temperature.

The material is a desiccant and generates heat when it adsorbs water. Active material adsorbs gases and vapours.

Corrosion to metals:

No corrosive effect on metal.

Oxidizing properties:

Based on its structural properties the product is not classified as oxidizing. (other)

11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50

Species: rat

Value: > 5,110 mg/kg (OECD Guideline 401)

The product has not been tested. The statement has been derived from products of a similar structure and composition.

Irritation / corrosion

Skin:

Species: rabbit

Result: non-irritant

Method: OECD Guideline 404

The product has not been tested. The statement has been derived from products of a similar structure and composition. Literature data.

Eye:

Species: rabbit

Result: non-irritant

Method: OECD Guideline 405

The product has not been tested. The statement has been derived from products of a similar structure and composition.

Sensitization:

Safety Data Sheet

Sorbead® ORANGE CHAMELEON 2050

Revision date : 2010/08/23

Page: 5/7

Version: 1.0

(30500139/SDS_GEN_US/EN)

Guinea pig maximization test

Species: guinea pig

Result: Non-sensitizing.

The product has not been tested. The statement has been derived from products of a similar structure and composition.

12. Ecological Information

Fish

Acute:

Fish test acute static

Pimephales promelas/NOEC (96 h): > 680 mg/l

The product has not been tested. The statement has been derived from products of a similar structure and composition.

Chronic:

semistatic

Pimephales promelas /NOEC (30 d): > 87 mg/l

The product has not been tested. The statement has been derived from products of a similar structure and composition.

Aquatic invertebrates

Acute:

Daphnia test acute semistatic

Daphnia magna/EC50 (96 h): 377 mg/l

The product has not been tested. The statement has been derived from products of a similar structure and composition.

Chronic:

semistatic Daphnia magna (NOEC) 21 d 10 mg/l

The product has not been tested. The statement has been derived from products of a similar structure and composition.

Aquatic plants

Toxicity to aquatic plants:

OECD Guideline 201 static

green algae/EC50 (96 h): 18 mg/l

The product has not been tested. The statement has been derived from products of a similar structure and composition.

Plant

Toxicity to terrestrial plants:

OECD Guideline 208 radish/EC50:

The product has not been tested. The statement has been derived from products of a similar structure and composition.

radish/No observed effect concentration:

The product has not been tested. The statement has been derived from products of a similar structure and composition.

Degradability / Persistence

Biological / Abiological Degradation

Evaluation:

Inorganic product which cannot be eliminated from water by biological purification processes.

Bioaccumulation

Safety Data Sheet

Sorbead® ORANGE CHAMELEON 2050

Revision date : 2010/08/23

Page: 6/7

Version: 1.0

(30500139/SDS_GEN_US/EN)

Accumulation in organisms is not to be expected. The product has not been tested. The statement has been derived from products of a similar structure and composition.

13. Disposal considerations

Waste disposal of substance:

Observe national and local legal requirements. Contact specialized companies about recycling.

Container disposal:

Dispose of in accordance with national, state and local regulations. Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product. Contact manufacturer regarding recycling.

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

OSHA hazard category:

Skin and/or eye irritant;

EPCRA 311/312 (Hazard categories):

Acute;

16. Other Information

NFPA Hazard codes:

Health : 1 Fire: 0 Reactivity: 0 Special:

HMIS III rating

Health: 1 Flammability: 0 Physical hazard: 0

NFPA and HMIS use a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates extreme danger. Although similar, the two rating

Safety Data Sheet

Sorbead® ORANGE CHAMELEON 2050

Revision date : 2010/08/23

Page: 7/7

Version: 1.0

(30500139/SDS_GEN_US/EN)

systems are intended for different purposes, and use different criteria. The NFPA system was developed to provide an on-the-spot alert to the hazards of a material, and their severity, to emergency responders. The HMIS system was designed to communicate workplace hazard information to employees who handle hazardous chemicals.

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

MSDS Prepared by:

BASF NA Product Regulations

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MSDS Prepared on: 2010/08/23

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