

Safety Data Sheet

according to Regulation (EC) No. 1907/2006

BEST-Aktiv A

Print date: 06.12.2011

Product code:

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

Product identifier

BEST-Aktiv A

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

Use of the substance/mixture

Activator

Uses advised against

none/none

Details of the supplier of the safety data sheet

Company name:	Best Klebstoffe GmbH & Co. KG	
Street:	Gewerbestraße 10-14	
Place:	D-86981 Kinsau	
Telephone:	+49 (0)8869-93139	Telefax: +49 (0)8869-5238
e-mail:	info@bestklebstoffe.de	
Internet:	www.bestklebstoffe.de	
Responsible Department:	Dr. Timo Gans-Eichler Chemieberatung Raesfeldstr. 22 48149 Münster	e-mail: tge-consult@t-online.de Tel.: +49 (0)251/924520-60 www.tge-consult.de

Emergency telephone: +49 (0)8869-93139 (08:00 - 17:00)

SECTION 2: Hazards identification

Classification of the substance or mixture

Indications of danger : Highly flammable, Harmful, Irritant, Dangerous for the environment
R-phrases:
Possible risk of impaired fertility.
Highly flammable.
Irritating to skin.
Harmful: danger of serious damage to health by prolonged exposure through inhalation.
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Harmful: may cause lung damage if swallowed.
Vapours may cause drowsiness and dizziness.

GHS classification

Hazard categories:
Flammable liquid: Flam. Liq. 2
Skin corrosion/irritation: Skin Irrit. 2
Reproductive toxicity: Repr. 2
Specific target organ toxicity - single exposure: STOT SE 3
Specific target organ toxicity - repeated exposure: STOT RE 2
Aspiration hazard: Asp. Tox. 1
Hazardous to the aquatic environment: Aquatic Chronic 2
Hazard Statements:
Highly flammable liquid and vapour.
Causes skin irritation.
Suspected of damaging fertility.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.
May be fatal if swallowed and enters airways.
Toxic to aquatic life with long lasting effects.

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Label elements

Signal word:

Danger

Pictograms:

GHS02-GHS07-GHS08-GHS09



Hazardous components which must be listed on the label

n-hexane

Hazard statements

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H361f	Suspected of damaging fertility.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H304	May be fatal if swallowed and enters airways.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P233	Keep container tightly closed.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331	Do NOT induce vomiting.
P370+P378	In case of fire: Use Dry extinguishing powder. Carbon dioxide (CO ₂). for extinction.
P501	Dispose of contents/container to disposal according to official regulations .

SECTION 3: Composition/information on ingredients

Mixtures

Hazardous components

EC No.	Chemical name	Quantity
CAS No.	Classification	
Index No.	GHS classification	
REACH No.		
203-777-6	n-hexane	80 - <100 %
110-54-3	F, Repr. Cat. 3, Xn, Xi, N R11-62-48/20-65-38-67-51-53	
601-037-00-0	Flam. Liq. 2, Repr. 2, Asp. Tox. 1, STOT RE 2, Skin Irrit. 2, STOT SE 3, Aquatic Chronic 2; H225 H361f *** H304 H373 ** H315 H336 H411	

Full text of R- and H-phrases: see section 16.

Further Information

Full text of R- and H-phrases: see section 16.

SECTION 4: First aid measures

Description of first aid measures

General information

In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible).

After inhalation

Provide fresh air. In case of irritation of the respiratory tract seek medical advice. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON

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CENTER or doctor/physician.

After contact with skin

Remove contaminated clothing immediately and dispose off safely. After contact with skin, wash immediately with: Water and soap. Remove contaminated clothing immediately and dispose off safely. If skin irritation occurs: Get medical advice/attention.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water. Immediately call a POISON CENTER or doctor/physician. Let water be swallowed in little sips (dilution effect). Do not induce vomiting.

Most important symptoms and effects, both acute and delayed

Inhalation of vapours or spray/mists : drowsiness. Headache. Dizziness. Nausea.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

dry extinguishing powder.
Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons

High power water jet.

Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO₂).

Advice for firefighters

Wear a self-contained breathing apparatus and chemical resistant suit.

Additional information

Use water spray/stream to protect personnel and to cool endangered containers.
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition - No smoking.
Provide adequate ventilation.
High slip hazard because of leaking or spilled product.
Wear personal protection equipment. (Refer to chapter 8.)

Environmental precautions

Cover drains. Prevent spreading over great surfaces (e.g. by damming or installing oil booms).
Do not empty into drains or the aquatic environment.
Dumping into the environment must be prevented.

Methods and material for containment and cleaning up

Use a water spray jet to knock down vapours/gases/mists.
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the assimilated material according to the section on waste disposal.
Clear contaminated area thoroughly.

Reference to other sections

See protective measures under point 7 and 8.

SECTION 7: Handling and storage

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Precautions for safe handling**Advice on safe handling**

Wear suitable protective clothing. (Refer to chapter 8.)

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Flammable vapours can accumulate in steam space of closed systems. Vapours are heavier than air and will spread at floor level. Formation of potentially explosive mixtures with: Air.

Further information on handling

Conditions to avoid: Generation/formation of aerosols

Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep locked up. Keep container tightly closed and in a well-ventilated place. Keep in a cool place. Protect from sunlight.

Advice on storage compatibility

Do not store together with: Radioactive substances. Infectious substances. Organic peroxides. Oxidizing solids Oxidizing liquids Pyrophoric liquids and solids. Inflammatory substances. Substances or mixtures which, in contact with water emit flammable gases. Non-combustible toxic substances.

Further information on storage conditionsKeep/Store only in original container. Store small quantities in appropriate dangerous substance cabinets. Suitable material for floor covering: Solvent-proof.
The floor should be leak tight, jointless and not absorbent.**SECTION 8: Exposure controls/personal protection****Control parameters****Exposure limits (EH40)**

CAS No.	Chemical name	ml/m ³	mg/m ³	F/ml	Category	Origin
110-54-3	n-Hexane	20	72		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

Exposure controls**Occupational exposure controls**

In case of open handling equipment with built-in suction must be used. Do not breathe gas/fumes/vapour/spray. Avoid contact during pregnancy/while nursing.

Protective and hygiene measures

Always close containers tightly after the removal of product. Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and at the end of work. Remove contaminated clothing immediately and dispose off safely. Wash contaminated clothing prior to re-use. Used working clothes should not be used outside the work area. Street clothing should be stored separately from work clothing. Do not put any product-impregnated cleaning rags into your trouser pockets. Protect skin by using skin protective cream.

Respiratory protectionRespiratory protection required in case of:
Generation/formation of aerosols
exceeding critical value

Suitable respiratory protective equipment: gas filtering equipment (EN 141). Type : A

Hand protectionPull-over gloves of rubber. DIN EN 374
Suitable material:

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(penetration time (maximum wearing period): ≥ 8 h):

FKM (fluororubber). (0,4 mm)

NBR (Nitrile rubber). (0,35 mm)

Before using check leak tightness / impermeability. In case of reutilization, clean gloves before taking off and store in well-aired place.

Eye protection

Suitable eye protection: Tightly sealed safety glasses. DIN EN 166

Skin protection

Protective apron.

Environmental exposure controls

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

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state: liquid
Colour: green
Odour: characteristic

Test method

pH-Value: n/a

Changes in the physical state

Melting point: -95 °C

Boiling point: 69 °C

Flash point: -26 °C

Lower explosion limits: 1,2 vol. %

Upper explosion limits: 7,4 vol. %

Ignition temperature: 240 °C

Oxidizing properties

none/none

Vapour pressure:
(at 20 °C) 160 hPa

Density (at 20 °C): 0,66 g/cm³

Water solubility: practically insoluble

Viscosity / kinematic:
(at 20 °C) 0,5 mm²/s

Vapour density: 2,79

SECTION 10: Stability and reactivity

Reactivity

Reacts with : Oxidizing agents, strong.

Chemical stability

Stable under normal storage and handling conditions.

Possibility of hazardous reactions

Reacts with : Oxidizing agents, strong.

Conditions to avoid

In case of warming: Ignition hazard. Vapours can travel considerable distances to a source of ignition where they can ignite, flash back, or explode. It is possible that in the head space of sealed containers, especially in the case of thermal development, vapours of solvent cleaners may accumulate. Flames

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and sources of ignition must be kept well away.

Incompatible materials

Materials to avoid: Oxidizing agents, strong.

Hazardous decomposition products

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO₂).

SECTION 11: Toxicological information

Information on toxicological effects

Toxicocinetics, metabolism and distribution

No information available.

Acute toxicity

CAS No.	Chemical name				
	Exposure routes	Method	Dose	Species	h
110-54-3	n-hexane				
	Acute oral toxicity	LD50	25000 mg/kg	Rat.	
	Acute dermal toxicity	LD50	2000 mg/kg	Rabbit.	
	Acute inhalation toxicity	LC50	171,6 mg/l	Rat.	4

Specific effects in experiment on an animal

No information available.

Irritation and corrosivity

Irritant effect on the eye: irritant. slightly irritant but not relevant for classification.

Irritant effect on the skin:

Sensitizing effects

no danger of sensitization.

Severe effects after repeated or prolonged exposure

Subchronic inhalative toxicity: NOAEC = 500 ppm (90d OECD 913)

Carcinogenic/mutagenic/toxic effects for reproduction

Developmental toxicity/teratogenicity: LOAEC = 200 ppm

No experimental indications of mutagenicity in-vitro exist.

SECTION 12: Ecological information

Toxicity

CAS No.	Chemical name				
	Aquatic toxicity	Method	Dose	Species	h
110-54-3	n-hexane				
	Acute fish toxicity	LC50	2,5 mg/l	Pimephales promeas	96
	Acute crustacea toxicity	EC50	2,41 mg/l	Daphnia magna	48

Persistence and degradability

Product is biodegradable.

Bioaccumulative potential

BCF = 501.187 (QSAR)

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Partition coefficient n-octanol/water

CAS No.	Chemical name	Log Pow
110-54-3	n-hexane	4,11

Mobility in soil

No information available.

Results of PBT and vPvB assessment

No information available.

Further information

Do not allow uncontrolled leakage of product into the environment.

SECTION 13: Disposal considerations**Waste treatment methods****Advice on disposal**

Waste disposal according to official state regulations. Consult the local waste disposal expert about waste disposal.

Waste disposal number of waste from residues/unused products070704 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fine chemicals and chemical products not otherwise specified; other organic solvents, washing liquids and mother liquors
Classified as hazardous waste.**Waste disposal number of used product**070704 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fine chemicals and chemical products not otherwise specified; other organic solvents, washing liquids and mother liquors
Classified as hazardous waste.**Waste disposal number of contaminated packaging**150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances
Classified as hazardous waste.**Contaminated packaging**

Cleaned containers may be recycled.

SECTION 14: Transport information**Land transport (ADR/RID)**

UN number: 1208
UN proper shipping name: HEXANES
Transport hazard class(es): 3
Packing group: II
Hazard label: 3



Classification code: F1
Limited quantity: 1 L
Transport category: 2
Hazard-no.: 33
Tunnel restriction code: D/E

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Other applicable information (land transport)

Special provisions: 144 601
Excepted quantity: E2
Transport category: 2
Special provisions: 274 601 640C
Special provisions: 601

Inland waterways transport

UN number: 1208
UN proper shipping name: HEXANES
Transport hazard class(es): 3
Packing group: II
Hazard label: 3



Classification code: F1
Limited quantity: 1 L

Other applicable information (inland waterways transport)

Special provisions: 144 601
Excepted quantity: E2
Special provisions: 274 601 640D
Special provisions: 601

Marine transport

UN number: 1208
UN proper shipping name: HEXANES
Transport hazard class(es): 3
Packing group: II
Hazard label: 3



Special Provisions: -
Limited quantity: 1 L
EmS: F-E, S-D

Other applicable information (marine transport)

Special provisions: 144, 223
Excepted quantity: E1
Special provisions: 274
Excepted quantity: E2
Special provisions: -

Air transport

UN/ID number: 1208
UN proper shipping name: HEXANES
Transport hazard class(es): 3
Packing group: II
Hazard label: 3

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Limited quantity Passenger: 1 L

IATA-packing instructions - Passenger:	353
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	364
IATA-max. quantity - Cargo:	60 L

Other applicable information (air transport)

Excepted quantity: E1
Passenger-LQ: Y309
Special provisions: A3 A58
Excepted quantity: E2
Passenger-LQ: Y305
Passenger-LQ: Y341

SECTION 15: Regulatory information

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

EU regulatory information

1999/13/EC (VOC): 100% (Data concerning the Directive 1999/13/EC on the limitation of emissions of volatile organic compounds (VOC-RL))

Additional information

1967/548 (2008/58, 30. ATP/ 31. ATP); 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006; 1272/2008; 75/324/EWG (2008/47/EG)

National regulatory information

Employment restrictions: Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing. Observe employment restrictions for women of child-bearing age.

Water contaminating class (D): 2 - water contaminating

SECTION 16: Other information

Changes

05.12.2011 Rev.1.0 Initial release

Full text of R-phrases referred to under sections 2 and 3

11	Highly flammable.
38	Irritating to skin.
48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
51	Toxic to aquatic organisms.
51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
53	May cause long-term adverse effects in the aquatic environment.
62	Possible risk of impaired fertility.
65	Harmful: may cause lung damage if swallowed.
67	Vapours may cause drowsiness and dizziness.

Full text of H-Statements referred to under sections 2 and 3

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.

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H411 Toxic to aquatic life with long lasting effects.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)