

Benzyl Alcohol

Version number: 2.0

SECTION 1: Identification

1.1 Product identifier

Identification of the substance	benzyl alcohol
Trade name	<u>Benzyl Alcohol</u>
CAS number	100-51-6

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

Relevant identified uses	Intermediate Solvents
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1.3 Details of the supplier of the safety data sheet

Valudor Products, LLC	Telephone: +1 (760) 635 8500
179 Calle Magdalena Suite 100	e-mail: info@valudor.com
Encinitas, California CA 92024	Website: www.valudor.com
United States	

1.4 Emergency telephone number

Emergency information	800-535-5053 (Infotrac)
As above or nearest toxicological information center.	

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Classification				
Section	Hazard class	Category	Hazard class and category	Hazard state-ment
A.1O	acute toxicity (oral)	4	Acute Tox. 4	H302
A.3	serious eye damage/eye irritation	2A	Eye Irrit. 2A	H319
A.4S	skin sensitization	1B	Skin Sens. 1B	H317

For full text of abbreviations: see SECTION 16

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Signal word	warning
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Pictograms

GHS07



Hazard statements

H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

Precautionary statements

P261 Avoid breathing mist/vapors/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a poison center/doctor if you feel unwell.
P330 Rinse mouth.
P337+P313 If eye irritation persists: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

Name of substance benzyl alcohol

Identifiers

CAS No 100-51-6

Molecular formula C₇H₈O

Molar mass 108.1 g/mol

Impurities and additives		
Name of substance	Identifier	Wt%
dibenzyl ether	CAS No 103-50-4	0.1 - <0.3

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Self-protection of the first aider.

Remove affected person from the danger area and lay down.

Do not leave affected person unattended.

Take off immediately all contaminated clothing.

In all cases of doubt, or when symptoms persist, seek medical advice.

Following inhalation

Provide fresh air.

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.

Following skin contact

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

If skin irritation or rash occurs: Get medical advice/attention.

Following eye contact

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Remove contact lenses, if present and easy to do. Continue rinsing.

Following ingestion

Rinse mouth. Do not induce vomiting.

Get medical advice/attention.

Notes for the doctor

None.

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation: Dizziness, Headache, Unconsciousness, Nausea.

4.3 Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

water spray, alcohol resistant foam, fire extinguishing powder, carbon dioxide (CO₂)

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products: Section 10.

Vapors may form explosive mixtures with air.

Hazardous combustion products

carbon monoxide (CO), carbon dioxide (CO₂), pyrolysis products, toxic

5.3 Advice for firefighters

Keep containers cool with water spray.
In case of fire and/or explosion do not breathe fumes.
Coordinate firefighting measures to the fire surroundings.
Do not allow firefighting water to enter drains or water courses.
Collect contaminated firefighting water separately.
Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

chemical protection suit, self-contained breathing apparatus (SCBA)

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.
Ventilate affected area.
Eliminate all ignition sources if safe to do so.
Do not breathe mist/vapors/spray.
Do not get in eyes, on skin, or on clothing.
Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water.
Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Set up barriers.
Covering of drains.

Advice on how to clean up a spill

Collect spillage.
Absorbent material (e.g. sand, diatomaceous earth, acid binder, universal binder, sawdust, etc.).

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal.
Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5.
Personal protective equipment: see section 8.
Incompatible materials: see section 10.
Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Do not get in eyes, on skin, or on clothing.

Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation.

Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharge.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Handling of incompatible substances or mixtures

Keep away from

oxidizers

Measures to protect the environment

Avoid release to the environment.

Do not empty into drains; dispose of this material and its container at hazardous or special waste collection point.

Advice on general occupational hygiene

Do not eat, drink and smoke in work areas.

Remove contaminated clothing and protective equipment before entering eating areas.

Do not breathe mist/vapors/spray.

Do not get in eyes, on skin, or on clothing.

Wash thoroughly after handling.

Preventive skin protection (barrier creams/ointments) is recommended.

7.2 Conditions for safe storage, including any incompatibilities

Explosive atmospheres

Store at temperatures not exceeding 50 °C/122 °F.

Flammability hazards

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Incompatible substances or mixtures

Incompatible materials: see section 10.

Observe compatible storage of chemicals.

Protect against external exposure, such as

heat, humidity, direct light irradiation, sunlight

Consideration of other advice

Keep away from food, drink and animal feedingstuffs.

Keep container tightly closed.

Store in a dry place. Store in a closed container.

Ventilation requirements

Provision of sufficient ventilation.

Specific designs for storage rooms or vessels

Handle under inert gas. Protect from moisture.

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Storage temperature

recommended storage temperature: <50 °C

Packaging compatibilities

Keep only in original container.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

No constituent of the product currently has a known exposure limit.

8.2 Exposure controls

Appropriate engineering controls

Use local and general ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Hand protection

Protective gloves		
Material	Material thickness	Breakthrough times of the glove material
IIR: isobutene-isoprene (butyl) rubber	≥ 0,5 mm	>480 minutes (permeation: level 6)
FKM: fluoro-elastomer	≥ 0,4 mm	>480 minutes (permeation: level 6)
PVC: polyvinyl chloride	≥ 0,5 mm	>120 minutes (permeation: level 4)

Wear suitable gloves.

Chemical protection gloves are suitable, which are tested according to EN 374.

Check leak-tightness/impermeability prior to use.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Body protection

Protective clothing against liquid chemicals.

Respiratory protection

Filtering device (EN 147).

Type : A (against organic gases and vapors with a boiling point of > 65 °C , color code: Brown).

Environmental exposure controls

Use appropriate container to avoid environmental contamination.

Keep away from drains, surface and ground water.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state liquid

Color clear - colorless

Odor light
Aromatic

Odor threshold not determined

Other safety parameters

pH (value) not determined

Melting point/freezing point -15.4 °C

Boiling point or initial boiling point and boiling range 205.3 °C at 1,013 hPa

Flash point 100.4 °C
(closed cup)

Evaporation rate not determined

Flammability (solid, gas) not relevant
(fluid)

Explosive limits not determined

Vapor pressure 0.07 hPa at 20 °C

Density and/or relative density

Density 1.045 g/cm³ at 20 °C

Relative density 1.04 at 24 °C (water = 1)

Relative density / Relative vapour density 1.04 at 24 °C (water = 1)
(ECHA)

Solubility(ies)

Water solubility 40 g/l at 25 °C

Partition coefficient

n-octanol/water (log KOW) 1.05

Soil organic carbon/water (log KOC) 1.122 – 1.332
(QSAR)
(ECHA)

Auto-ignition temperature 436 °C

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Decomposition temperature	not relevant
Viscosity	
Kinematic viscosity	5.59 mm ² /s at 20 °C (calculated)
Dynamic viscosity	5.84 mPa s at 20 °C
Explosive properties	none
Oxidizing properties	none
Information for relevant hazard classes according to GHS	hazard classes acc. to GHS (physical hazards): not relevant

9.2 Other information

Temperature class (USA, acc. to NEC 500)	T2 (maximum permissible surface temperature on the equipment: 300°C)
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SECTION 10: Stability and reactivity

10.1 Reactivity

This material is not reactive under normal ambient conditions.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

High temperatures (>180°C): Dangerous/dangerous reactions with: Aluminum, Acid Strong oxidizer, (Sulphuric acid) + Iron.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

UV-radiation/sunlight.

Humidity.

10.5 Incompatible materials

oxidizers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known.

Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

If not otherwise specified the classification is based on:

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Animal studies; Evidence from any other toxicity tests; Expert judgment (weight of evidence determination).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Harmful if swallowed.

Exposure route	Endpoint	Value	Species	Method	Source
oral	LD50	1,620 mg/kg	rat, male	-	ECHA

Acute toxicity of components							
Name of substance	CAS No	Exposure route	End-point	Value	Species	Method	Source
dibenzyl ether	103-50-4	oral	LD50	3,860 mg/kg	rat	OECD Guideline 401	ECHA
dibenzyl ether	103-50-4	dermal	LD50	>5,370 mg/kg	rabbit	OECD Guideline 402	ECHA

Skin corrosion/irritation

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Skin sensitization

Shall not be classified as a skin sensitizer.

May cause an allergic skin reaction.

Respiratory sensitization

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

IARC Monographs

not listed

National Toxicology Program (United States)

not listed

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OSHA Carcinogens

Not listed.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

11.2 Other information

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity (acute)

Based on available data, the classification criteria are not met.

Endpoint	Exposure time	Value	Species	Method	Source
LC50	96 h	460 mg/l	fathead minnow (Pimephales promelas)	EPA OPP 72-1	ECHA
EC50	48 h	230 mg/l	daphnia magna	OECD Guideline 202	ECHA
EC50	72 h	500 mg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA
ErC50	72 h	770 mg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA

Aquatic toxicity (acute) of components

Name of substance	CAS No	Endpoint	Exposure time	Value	Species	Method	Source
dibenzyl ether	103-50-4	LC50	96 h	6.8 mg/l	japanese rice-fish/medaka (Oryzias latipes)	OECD Guideline 203	ECHA
dibenzyl ether	103-50-4	EC50	48 h	0.77 mg/l	Daphnia carinata	OECD Guideline 202	ECHA
dibenzyl ether	103-50-4	ErC50	72 h	4.1 mg/l	algae (raphidocelis subcapitata)	OECD Guideline 201	ECHA

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Name of substance	CAS No	Endpoint	Exposure time	Value	Species	Method	Source
dibenzyl ether	103-50-4	EbC50	72 h	1.6 mg/l	algae (raphidocelis subcapitata)	OECD Guideline 201	ECHA

Aquatic toxicity (chronic)

Based on available data, the classification criteria are not met.

Endpoint	Exposure time	Value	Species	Method	Source
EC50	21 d	66 mg/l	daphnia magna	OECD Guideline 211	ECHA
NOEC	21 d	51 mg/l	daphnia magna	OECD Guideline 211	ECHA
NOEC	72 h	310 mg/l	algae (Desmodesmus subspicatus)	OECD Guideline 201	ECHA

Aquatic toxicity (chronic) of components

Name of substance	CAS No	Endpoint	Exposure time	Value	Species	Method	Source
dibenzyl ether	103-50-4	LC50	21 d	2.2 mg/l	japanese rice-fish/medaka (Oryzias latipes)	OECD Guideline 204	ECHA
dibenzyl ether	103-50-4	ErC50	21 d	0.76 mg/l	daphnia magna	OECD Guideline 202, Part II	ECHA
dibenzyl ether	103-50-4	EC50	30 min	138 mg/l	microorganisms	-	ECHA
dibenzyl ether	103-50-4	NOEC	21 d	0.48 mg/l	japanese rice-fish/medaka (Oryzias latipes)	OECD Guideline 204	ECHA
dibenzyl ether	103-50-4	NOEC	21 d	0.098 mg/l	daphnia magna	OECD Guideline 202	ECHA
dibenzyl ether	103-50-4	NOEC	72 h	1 mg/l	algae (raphidocelis subcapitata)	OECD Guideline 201	ECHA
dibenzyl ether	103-50-4	LOEC	21 d	2.2 mg/l	japanese rice-fish/medaka (Oryzias latipes)	OECD Guideline 204	ECHA
dibenzyl ether	103-50-4	LOEC	21 d	0.23 mg/l	daphnia magna	OECD Guideline 202, Part II	ECHA

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Name of substance	CAS No	Endpoint	Exposure time	Value	Species	Method	Source
dibenzyl ether	103-50-4	LOEC	72 h	0.32 mg/l	algae (raphidocelis subcapitata)	OECD Guideline 201	ECHA

12.2 Persistence and degradability

Biodegradation

The substance is readily biodegradable.

Process of degradability				
Process	Degradation rate	Time	Method	Source
oxygen depletion	92 – 96 %	14 d	OECD Guideline 301 C	ECHA
DOC removal	95 %	21 d	OECD Guideline 301 A	ECHA

Degradability of components

Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
dibenzyl ether	103-50-4	oxygen depletion	7 %	14 d	OECD Guideline 301 C	ECHA

Persistence

The substance is not persistent.

12.3 Bioaccumulative potential

The substance is not bioaccumulative.

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

n-octanol/water (log KOW) 1.05

Bioaccumulative potential of components

Name of substance	CAS No	BCF	Log KOW
dibenzyl ether	103-50-4	≥171 – ≤429	3.31

12.4 Mobility in soil

The substance is very mobile.

The Organic Carbon normalised adsorption coefficient 1.122 – 1.332
(ECHA)

12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

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12.6 Other adverse effects

Data are not available.

Remarks

None.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information

Do not empty into drains.

Waste treatment of containers/packages

Completely emptied packages can be recycled.

Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1	UN number	not subject to transport regulations
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14.2	UN proper shipping name	-
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14.3	Transport hazard class(es)	-
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14.4	Packing group	-
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14.5	Environmental hazards	-
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14.6	Special precautions for user	-
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14.7	Transport in bulk according to IMO instruments	-
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14.8 Information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT) Additional information

Not subject to transport regulations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Toxic Substance Control Act (TSCA)	Substance is listed (ACTIVE)
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Superfund Amendment and Reauthorization Act (SARA TITLE III)

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The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

Not listed

Specific Toxic Chemical Listings (EPCRA Section 313)

Not listed

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

Not listed

Clean Air Act

Not listed

Right to Know Hazardous Substance List

Toxic or Hazardous Substance List (MA-TURA)

Not listed

Hazardous Substances List (MN-ERTK)

Name of substance	Name acc. to inventory	CAS No	References	Remarks
benzyl alcohol	Benzyl alcohol	100-51-6	I	-

Legend

I American Industrial Hygiene Association (AIHA), "Workplace Environmental Exposure Level Guides" (1992), available from AIHA

Hazardous Substance List (NJ-RTK)

Not listed

Hazardous Substance List (Chapter 323) (PA-RTK)

Name acc. to inventory	CAS No	Classification
BENZENEMETHANOL	100-51-6	-

Hazardous Substance List (RI-RTK)

Not listed

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

Not listed

Drug precursors, Chemicals designated within the Controlled Substances Act, 21 U.S.C. § 802, paragraphs 34 (list I) and 35 (list II)

Not listed

SECTION 16: Other information, including date of preparation or last revision

Date of preparation: 2023-02-07

Date of last revision: 2025-07-16.

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Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
BCF	Bioconcentration factor
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DGR	Dangerous Goods Regulations (see IATA/DGR)
EbC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IARC	International Agency for Research on Cancer
IARC Mono-graphs	IARC Monographs on the Evaluation of Carcinogenic Risks to Humans
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
IMDG	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
LOEC	Lowest Observed Effect Concentration
log KOW	n-Octanol/water
NOEC	No Observed Effect Concentration
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200 (May 20, 2024 eff. July 19, 2024).

Transport of dangerous goods by road or rail (49 CFR US DOT).

International Maritime Dangerous Goods Code (IMDG).

Dangerous Goods Regulations (DGR) for the air transport (IATA).

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List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.

Responsible for the safety data sheet

Chemical Regulatory Compliance Com- Telephone: +1 (630) 410-1660
pany e-Mail: GHS@crc-us.com
Jasper, GA Website: www.crc-us.com
USA

Disclaimer

This information is based upon the present state of our knowledge.
This SDS has been compiled and is solely intended for this product.