DAWN SCIENTIFIC
YOUR SCIENTIFIC PARTNER

SAFETY DATA SHEET

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Preparation Date: 01/01/2019 **Revision Date:** N/A **Revision Number:** N/A

1. IDENTIFICATION

Product identifier

Product code: C2045
Product Name: BENZYL ALCOHOL, REAGENT, ACS

Other means of identification

Synonyms: alpha-Hydroxytoluene; alpha-Toluenol; Benzal alcohol; Benzenecarbinol; Benzenemethanol; Benzoyl alcohol; Hydroxytoluene; Methanol, phenyl-; Phenolcarbinol; Phenylcarbinol; Phenylmethanol; Phenylmethyl alcohol
CAS #: 100-51-6
RTECS # DN3150000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Perfumes and flavors; photographic developer for color movie films; dyeing nylon filament, textiles, and sheet plastics; solvent for dyestuffs, cellulose esters, casein, waxes, etc.; heat-sealing polyethylene films; intermediate for benzyl esters and ethers; bacteriostat; cosmetics, ointments, emulsions; ball point pen inks; stencil inks.
Uses advised against No information available

Supplier:

Dawn Scientific Inc
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sales@dawnscientific.com | www.dawnscientific.com

Emergency telephone number Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Vapors)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1

Label elements

Warning

Hazard statements
Harmful if swallowed
Harmful in contact with skin
Harmful if inhaled
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction

Hazards not otherwise classified (HNOC)
Not Applicable

Other hazards
Harmful to aquatic life with long lasting effects
Harmful to aquatic life

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves
Wear eye/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Contaminated work clothing must not be allowed out of the workplace

Precautionary Statements - Response

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 advice/attention.
IF ON SKIN: Wash with plenty of water
Call a POISON CENTER or doctor/physician if you feel unwell
Take off contaminated clothing and wash it before reuse
If skin irritation or rash occurs: Get medical advice/attention
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Benzyl Alcohol	100-51-6	100

4. FIRST AID MEASURES

First aid measures

General Advice: National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms

Causes eye irritation
Eye contact may result in redness or pain
May cause an allergic skin reaction
Contact causes skin irritation
Central nervous system effects
May cause irritation of respiratory tract
Coughing
Dyspnea (Shortness of breath and difficulty breathing)
May cause abdominal pain, nausea, vomiting, diarrhea
May affect the cardiovascular system

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders
First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Carbon dioxide (CO2). Dry powder. Water spray mist or foam.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products: Carbon Monoxide, Carbon Dioxide.

Specific hazards: May be combustible at high temperatures. May be ignited by heat, sparks or flames. Container explosion may occur under fire conditions or when heated.

Special Protective Actions for Firefighters

Specific Methods: Water mist may be used to cool closed containers. For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out. Dike fire-control water for later disposal; do not scatter the material.

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:
Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials.

Safe Handling Advice
Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials. Keep away from heat and sources of ignition. Sensitive to light. Store in light-resistant containers. Store under inert gas.

Incompatible Materials:
Acids
Oxidizing agents
Aluminum
Iron
Steel

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Benzyl Alcohol	100-51-6	None	None	None	10 ppm TWA

Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Benzyl Alcohol	100-51-6	None	None	None	None

Australia and Mexico

Components	CAS-No.	Australia	Mexico
Benzyl Alcohol	100-51-6	None	None

Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Goggles

Skin and body protection: Long sleeved clothing
Chemical resistant apron
Gloves

Respiratory protection: Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:
Liquid

Appearance:
No information available.

Color:
Colorless. Clear.

Odor:
Slight. Aromatic.

Taste
Sharp. Burning.

Formula:
C7H8O

Molecular/Formula weight (g/mole):
108.14

Flammability:
No information available

Flashpoint (°C/°F):
93.0°C/199.4°F
100.56-104.44°C/213-220°F

Flash Point Tested according to:
Closed cup
Open cup

Autoignition Temperature (°C/°F):
436.0°C/816.8°F

Lower Explosion Limit (%):
No information available

Upper Explosion Limit (%):
No information available

Melting point/range(°C/°F):
-15.2°C/4.6°F

Decomposition temperature(°C/°F):
No information available

Boiling point/range(°C/°F):
205.3°C/401.5°F

Bulk density:
No information available

Density (g/cm3):
No information available

Specific gravity:
1.0419 at 20°C

pH:
No information available

Vapor pressure @ 20°C (kPa):
0.003 kPa

Evaporation rate:
No information available

Vapor density:
3.72

VOC content (g/L):
No information available

Odor threshold (ppm):
5.5 ppm

Partition coefficient (n-octanol/water):
1.1

Viscosity:
No information available

Miscibility:
No information available

Solubility:
Soluble in Water
Solubility in Water: 35,000 mg/L at 20 deg. C; 42,900 mg/L at 25 deg. C
Soluble in Acetone
Soluble in Benzene
Soluble in Ethanol
Soluble in Ether
Soluble in Chloroform

10. STABILITY AND REACTIVITY

Reactivity
Reactive with acids
Reactive with oxidizing agents
Attacks some plastics, rubber, and coatings.
Benzyl alcohol can extract and dissolve polystyrene plastic and may attack other plastics
A mixture of benzyl alcohol with 58% sulfuric acid decomposes explosively at about 180 deg. C.
Benzyl alcohol contaminated with 1.4% hydrogen bromide and 1.2% of dissolved iron (II) polymerizes exothermally above 100°C

Chemical stability

Stability: Stable under recommended storage conditions. Sensitive to light. Exposure to light accelerates decomposition. Slowly decomposes on contact with air.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Exposure to light. Exposure to air. Incompatible materials.

Incompatible Materials:
Acids
Oxidizing agents
Aluminum
Iron
Steel

Hazardous decomposition products: Carbon oxides. When heated to decomposition it emits acrid smoke and irritating fumes.

Other Information
Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Eyes. Ingestion. Inhalation. Skin.

Acute Toxicity

Component Information

Benzyl Alcohol	
CAS-No.	100-51-6

LD50/oral/rat = 1230 mg/kg Oral LD50 Rat
LD50/oral/mouse = 1360 mg/kg (RTECS)
1150-1580mg/kg (EU Commision IUCLID dataset)
LD50/dermal/rabbit = 2 g/kg Dermal LD50Rabbit
LD50/dermal/rat = No information available
LC50/inhalation/rat = 8.8 mg/L Inhalation LC50 Rat 4 h
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = 1040 mg/kg Oral LD50 Rabbit

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = 1230 mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = 1360 mg/kg

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = 2000 mg/kg

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = 8.8 mg/l (4-hr)
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Harmful in contact with skin. It may be absorbed through the skin. Causes skin irritation. Mildly to highly irritating. Can cause redness and pain.

Eye Contact: Causes serious eye irritation. Moderately irritating to the eyes. Causes redness, pain. Eye contact produces immediate smarting, but there is no permanent injury if exposure is brief.

Inhalation Harmful by inhalation. Inhalation of mist or vapors may cause respiratory tract (nose, throat), irritation. Symptoms may include coughing, shortness of breath. It may be absorbed into the blood stream with symtoms similar to ingestion.

Ingestion Harmful if swallowed. Ingestion of large doses may cause abdominal pain, nausea, vomiting, diarrhea. It may affect behavior/central nervous system and cause headache, somnolence, excitement, dizziness, ataxia, coma, convulsions,

and other symptoms of central nervous system depression. It may also affect respiration (paralysis of the respiratory center, respiratory depression, gasping respirations), cardiovascular system (hypotension).

Aspiration hazard No information available.

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

Chronic Toxicity Prolonged or repeated exposure (skin contact) may cause allergic contact dermatitis.Prolonged or repeated ingestion may affect behavior/central nervous system with symptoms similar to acute ingestion. It may also affect the liver, kidneys, cardiovascular system.

Sensitization: May cause sensitization by skin contact.

Mutagenic Effects: May affect genetic material
Mutations in microorganisms

Carcinogenic effects: Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Benzyl Alcohol	100-51-6	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: No information available
Developmental Effects: May cause adverse developmental effects based on animal data
Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available.
STOT - repeated exposure No information available.
Target Organs: No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

Benzyl Alcohol - 100-51-6
Freshwater Algae Data: 35 mg/L EC50 Anabaena variabilis 3 h
Freshwater Fish Species Data: 460 mg/L LC50 Pimephales promelas 96 h static 1 10 mg/L LC50 Lepomis macrochirus 96 h static 1
Water Flea Data: 23 mg/L EC50 water flea 48 h

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Benzyl Alcohol	100-51-6	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Subsidiary Class	No information available
Packing group:	No information available
Emergency Response Guide Number	No information available
Marine Pollutant	No data available
DOT RQ (lbs):	No information available
Special Provisions	No Information available
Symbol(s):	No information available
Description:	No information available

TDG (Canada)

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Subsidiary Risk:	No information available
Packing Group:	No information available
Marine Pollutant	No Information available
Description:	No information available

ADR

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Packing Group:	No information available
Subsidiary Risk:	No information available

IMO / IMDG

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Subsidiary Risk:	No information available
Packing Group:	No information available

Marine Pollutant No information available

RID

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available

ICAO

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available

IATA

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
ERG Code: No information available
Special Provisions No information available

15. REGULATORY INFORMATION

International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Benzyl Alcohol	100-51-6	PresentACTIVE	Present KE-02570	Present	Present (3)-1011	Present [03082]	Present	Present 202-859-9

U.S. Regulations

Benzyl Alcohol

Massachusetts RTK: Present
Pennsylvania RTK: Present
Minnesota - Hazardous Substance List: Present

FDA - Direct Food Additives 21 CFR 172.515
FDA - 21 CFR - Total Food Additives 172.515, 175.105, 175.300, 177.1210, 73.1001

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Benzyl Alcohol	100-51-6	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and	Section 302 Extremely Hazardous	Section 302 Extremely Hazardous	Section 313 - Chemical Category	Section 313 - Reporting de minimis

		their Reportable Quantities	Substances and TPQs	Substances and RQs		
Benzyl Alcohol	100-51-6	None	None	None	None	None

U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Benzyl Alcohol	100-51-6	Not Applicable	Not Applicable

Canada

WHIMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information: .

Component
Benzyl Alcohol
100-51-6 (100)

WHMIS 2015 Hazard Classification
Flammable liquids - Category 4: H227 Combustible liquid.; Acute toxicity - Oral - Category 4: H302 Harmful if swallowed.; Serious Eye Damage/Eye Irritation - Category 2: H319 Causes serious eye irritation.

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

WHMIS 1988 Hazard Class
B3 Combustible liquid
D2B Toxic materials

Components

Benzyl Alcohol	WHMIS 1988 B3,D2B

Canada Controlled Products Regulation:
This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
Benzyl Alcohol	1 %

Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Benzyl Alcohol	100-51-6	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Benzyl Alcohol	100-51-6	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Benzyl Alcohol	100-51-6	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Benzyl Alcohol	100-51-6	Acute toxicity - Oral - Acute Tox. 4: H302 Harmful if swallowed. (Minimum classification); Acute toxicity - Inhalation - Acute Tox. 4: H332 Harmful if inhaled. (Minimum classification)603-057-00-5

EU - CLP (1272/2008)

R-phrase(s)

R20/22 - Harmful by inhalation and if swallowed.

S -phrase(s)
S 2 - Keep out of the reach of children.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Components	CAS-No.	**Classification**	**Concentration Limits:**	**Safety Phrases**
Benzyl Alcohol	100-51-6	Xn; R20/22	No information	S: (2)-26

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:
Xn - Harmful.

16. OTHER INFORMATION

Preparation Date: 01/01/2019
Revision Date: N/A
Prepared by: -

Disclaimer: All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Dawn Scientific Inc Chemicals & Laboratory Products, assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Dawn Scientific Inc assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet