

SECTION 1: Identification

1.1. Identification

Product form	: Mixture
Trade name	: Batson's #17 Catalyst
Product code	: 02608
Formula	: mixture

1.2. Recommended use and restrictions on use

Recommended use	: Use as laboratory reagent, Manufacture of substances
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1.3. Supplier

Supplier

Polysciences
400 Valley Road
Warrington, PA 18976 - United States
T +1 215 343 6484 - F +1 215 343 0214
info@polysciences.com - www.polysciences.com

1.4. Emergency telephone number

Emergency number	: 24-hour emergency phone number ChemTel 1-800-255-3924
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SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 2	Highly flammable liquid and vapor
Organic Peroxide Category B	Heating may cause a fire or explosion
Serious eye damage/eye irritation Category 2	Causes serious eye irritation
Skin sensitization, Category 1	May cause an allergic skin reaction
Specific target organ toxicity – Single exposure, Category 3, Narcosis	May cause drowsiness or dizziness
Hazardous to the aquatic environment – Acute Hazard Category 1	Very toxic to aquatic life
Hazardous to the aquatic environment – Chronic Hazard Category 2	Toxic to aquatic life with long lasting effects

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: Highly flammable liquid and vapor
Heating may cause a fire or explosion
May cause an allergic skin reaction
Causes serious eye irritation
May cause drowsiness or dizziness
Very toxic to aquatic life
Toxic to aquatic life with long lasting effects

Precautionary statements (GHS US)

: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
Keep/Store away from clothing and other combustible materials
Keep container tightly closed.
Keep only in original container.
Ground/Bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.

2.3. Other hazards which do not result in classification

No additional information available

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2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Dibutyl phthalate	(CAS-No.) 84-74-2	71 – 80	Aquatic Acute 1, H400 Aquatic Chronic 2, H411
Acetone	(CAS-No.) 67-64-1	11 – 20	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
BENZOYL PEROXIDE	(CAS-No.) 94-36-0	1 – 10	Org. Perox. B, H241 Eye Irrit. 2, H319 Skin Sens. 1, H317

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : Call a physician immediately.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : 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.
- First-aid measures after ingestion : Rinse mouth. Call a physician immediately.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects : May cause drowsiness or dizziness.
- Symptoms/effects after skin contact : May cause an allergic skin reaction. Irritation.
- Symptoms/effects after eye contact : Eye irritation. Mild eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

- Fire hazard : Highly flammable liquid and vapor. Flammable liquid and vapor. Heating may cause a fire or explosion.
- Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing dust/fume/gas/mist/vapors/spray.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

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6.3. Methods and material for containment and cleaning up

- For containment : Collect spillage.
- Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.
- Hygiene measures : Separate working clothes from town clothes. Launder separately. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Ground/bond container and receiving equipment.
- Storage conditions : Store at room temp. Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up. Store away from other materials. Protect from sunlight. Keep only in original container.
- Incompatible materials : Combustible materials.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Batson's #17 Catalyst	
No additional information available	
Acetone (67-64-1)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Acetone
ACGIH TWA (ppm)	250 ppm meow
ACGIH STEL (ppm)	500 ppm
Remark (ACGIH)	eye irr; CNS impair; BEI
ACGIH chemical category	Not Classifiable as a Human Carcinogen
Regulatory reference	ACGIH 2018
USA - ACGIH - Biological Exposure Indices	
Biological Exposure Indices (BEI)	25 mg/l Parameter: Acetone - Medium: urine - Sampling time: end of shift (nonspecific)
USA - OSHA - Occupational Exposure Limits	
Local name	Acetone
OSHA PEL (TWA) (mg/m ³)	2400 mg/m ³
OSHA PEL (TWA) (ppm)	1000 ppm
Regulatory reference (US-OSHA)	OSHA
USA - IDLH - Occupational Exposure Limits	
US IDLH (ppm)	≤ 2500 ppm (10% LEL)
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA) (mg/m ³)	590 mg/m ³
NIOSH REL TWA [ppm]	250 ppm
Dibutyl phthalate (84-74-2)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Dibutyl phthalate
ACGIH TWA (mg/m ³)	5 mg/m ³
Remark (ACGIH)	TLV@ Basis: Testicular dam; eye & URT irr

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Regulatory reference	ACGIH 2018
USA - OSHA - Occupational Exposure Limits	
Local name	Dibutyl phthalate
OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - IDLH - Occupational Exposure Limits	
US IDLH (mg/m ³)	4000 mg/m ³
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA) (mg/m ³)	5 mg/m ³
BENZOYL PEROXIDE (94-36-0)	
No additional information available	

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
Appearance : clear yellowish liquid.
Color : Mixture contains one or more component(s) which have the following colour(s):
Colorless clear
Odor : There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure.
Mixture contains one or more component(s) which have the following odour:
weak aromatic Sweet mint-like
Odor threshold : No data available
pH : No data available
Melting point : Not applicable
Freezing point : No data available
Boiling point : 133
Flash point : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Flammability (solid, gas) : Not applicable. Heating may cause a fire.
Vapor pressure : 213

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Relative vapor density at 20°C	: no data
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: Heating may cause an explosion.
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapor. Flammable liquid and vapor. Heating may cause a fire or explosion.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Combustible materials.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Acetone (67-64-1)	
LD50 oral rat	5800 mg/kg
LD50 dermal rabbit	> 15700 mg/kg
LC50 Inhalation - Rat	50100 mg/l (Exposure time: 8 h)

Dibutyl phthalate (84-74-2)	
LD50 oral rat	7499 mg/kg
LD50 dermal rabbit	> 20 mg/kg
LC50 Inhalation - Rat	> 15.68 mg/l/4h

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

BENZOYL PEROXIDE (94-36-0)	
IARC group	3 - Not classifiable

Reproductive toxicity	: Not classified
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Dibutyl phthalate (84-74-2)	
LOAEL (animal/male, F1)	52 mg/kg body weight Animal: rat, Animal sex: male
NOAEL (animal/female, F0/P)	385 mg/kg body weight Animal: rat, Animal sex: female

STOT-single exposure : May cause drowsiness or dizziness.

Acetone (67-64-1)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified

Dibutyl phthalate (84-74-2)	
LOAEL (oral,rat,90 days)	752 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
NOAEL (oral,rat,90 days)	152 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

Aspiration hazard : Not classified

Viscosity, kinematic : No data available

Symptoms/effects : May cause drowsiness or dizziness.

Symptoms/effects after skin contact : May cause an allergic skin reaction. Irritation.

Symptoms/effects after eye contact : Eye irritation. Mild eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Acetone (67-64-1)	
EC50 Daphnia 1	10294 – 17704 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 fish 2	6210 – 8120 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

Dibutyl phthalate (84-74-2)	
LC50 fish 1	0.35 mg/l
EC50 Daphnia 1	2.99 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 fish 2	0.31 – 5.45 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 2	3.4 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LOEC (chronic)	0.811 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.158 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	0.1 mg/l
NOEC chronic crustacea	0.1 mg/l

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Acetone (67-64-1)	
BCF fish 1	0.69
Partition coefficient n-octanol/water (Log Pow)	-0.24

Dibutyl phthalate (84-74-2)	
Partition coefficient n-octanol/water (Log Pow)	5.38 (at 25 °C)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Disposal methods

- Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information : Flammable vapors may accumulate in the container.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

- Transport document description : UN1090 Acetone, 3, II
UN-No.(DOT) : UN1090
Proper Shipping Name (DOT) : Acetone
Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Packing group (DOT) : II - Medium Danger
Hazard labels (DOT) : 3 - Flammable liquid



- Dangerous for the environment : Yes
Marine pollutant : Yes



- DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 242
DOT Special Provisions (49 CFR 172.102) : IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.
T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L
DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
Emergency Response Guide (ERG) Number : 127
Other information : No supplementary information available.

Transportation of Dangerous Goods

Not applicable

Transport by sea

- Transport document description (IMDG) : UN 1090 ACETONE, 3, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS (-20°C c.c.)
UN-No. (IMDG) : 1090
Proper Shipping Name (IMDG) : ACETONE
Class (IMDG) : 3 - Flammable liquids

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Packing group (IMDG) : II - substances presenting medium danger
Limited quantities (IMDG) : 1 L
MFAG-No : 127
Marine pollutant : Yes



Air transport

Transport document description (IATA) : UN 1090 Acetone, 3, II, ENVIRONMENTALLY HAZARDOUS
UN-No. (IATA) : 1090
Proper Shipping Name (IATA) : Acetone
Class (IATA) : 3 - Flammable Liquids
Packing group (IATA) : II - Medium danger

SECTION 15: Regulatory information

15.1. US Federal regulations

Acetone (67-64-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Not subject to reporting requirements of the United States SARA Section 313

CERCLA RQ : 5000 lb

Dibutyl phthalate (84-74-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313
Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ : 10 lb

BENZOYL PEROXIDE (94-36-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

15.2. International regulations

CANADA

Acetone (67-64-1)

Listed on the Canadian DSL (Domestic Substances List)

Dibutyl phthalate (84-74-2)

Listed on the Canadian DSL (Domestic Substances List)

BENZOYL PEROXIDE (94-36-0)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

National regulations

No additional information available

15.3. US State regulations

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Dibutyl phthalate (84-74-2)					
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
No	Yes	Yes	Yes		8.7 µg/day

Component	State or local regulations
Dibutyl phthalate(84-74-2)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Acetone(67-64-1)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
BENZOYL PEROXIDE(94-36-0)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

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Revision date : 01/31/2018

Hazard Rating

Health

: 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability

: 3 Serious Hazard - Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 F and boiling points above 100 F. as well as liquids with flash points between 73 F and 100 F. (Classes IB IC)

Physical

: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS US (GHS HazCom 2012)

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