



GRADE 1054 SOLVENT

Revision 12/14/2017

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SECTION 1 - CHEMICAL PRODUCT AND COMPANY**INFORMATION PRODUCT NAME:** GRADE 1054**PRODUCT USE:** Solvent

Not recommended for: Consumer Use

Manufacturer/Supplier:

PANNIER CORPORATION

207 SANDUSKY STREET

PITTSBURGH, PA 15212-5823 U.S.A.

412-323-4900

SALES@PANNIER.COM

24 Hr Emergency Telephone Number: Infotrac 800-535-5053**SECTION 2 - HAZARDS IDENTIFICATION**

Classification of the substance or mixture

Classification (GHS-US)

Flam. Liq. 4	H227 -	Combustible liquid
Acute Tox. 4 (Oral)	H302 -	Harmful if swallowed
Acute Tox. 3 (Dermal)	H311 -	Toxic in contact with skin
Acute Tox. 4 (Inhalation:dust,mist)	H332 -	Harmful if inhaled
Skin Irrit. 2	H315 -	Causes skin irritation

Full text of H-phrases: see section 16

Label elements**GHS-US labeling**

Hazard pictograms (GHS-US):

**Signal word (GHS-US):****Hazard statements (GHS-US):****Precautionary statements (GHS-US):**

GHS07

Danger

H227 - Combustible liquid

H302+H332 - Harmful if swallowed or if inhaled

H311 - Toxic in contact with skin

H315 - Causes skin irritation

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P261 - Avoid breathing mist, spray, vapors

P264 - Wash hands, forearms and face, clothing 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

P301+P312 - If swallowed: Call a doctor or poison center if you feel unwell

P302+P352 - If on skin: Wash with plenty of water

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing

P312 - Call a doctor or poison center if you feel unwell

P321 - Specific treatment (see a doctor or poison center on this label)

P330 - Rinse mouth

P332+P313 - If skin irritation occurs: Get medical advice/attention

P361 - Take off immediately all contaminated clothing

P362 - Take off contaminated clothing and wash it before reuse

P363 - Wash contaminated clothing before reuse

P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO₂), dry extinguishing powder to extinguish

P403+P235 - Store in a well-ventilated place. Keep cool

P405 - Store locked up

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P501 - Dispose of contents/container to an approved waste disposal plant

Other hazards No additional information available**Unknown acute toxicity (GHS US)** Not applicable**SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS****Substance**

Name: BUTYL CELLOSOLVE

Name	Product identifier	%	Classification (GHS-US)
2-butoxyethanol	(CAS No) 111-76-2	< 99.5	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315

Full text of H-phrases: see section 16

Mixture Not applicable**SECTION 4 - FIRST AID MEASURES****Description of first aid measures****First-aid measures general:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).**First-aid measures after inhalation:** Allow victim to breathe fresh air. Allow the victim to rest. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.**First-aid measures after skin contact:** Immediately call a poison center or doctor/physician. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Specific measures (see Consult a doctor/medical service on this label). Wash contaminated clothing before reuse. If skin irritation occurs: Gently wash with plenty of soap and water. Get medical advice/attention. Specific treatment (see Consult a doctor/medical service on this label).**First-aid measures after eye contact:** Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.**First-aid measures after ingestion:** Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER or doctor/physician if you feel unwell.**Most important symptoms and effects, both acute and delayed****Symptoms/injuries after inhalation** Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.**Symptoms/injuries after skin contact:** Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin. Causes skin irritation.**Symptoms/injuries after ingestion:** Swallowing a small quantity of this material will result in serious health hazard.**Indication of any immediate medical attention and special treatment needed** No additional information available**SECTION 5 - FIRE FIGHTING MEASURES****Extinguishing media****Suitable extinguishing media:** Foam. Dry powder. Carbon dioxide. Water spray. Sand.**Unsuitable extinguishing media:** Do not use a heavy water stream.**Special hazards arising from the substance or mixture****Fire hazard:** Combustible liquid.**Explosion hazard:** May form flammable/explosive vapor-air mixture.**Advice for firefighters****Firefighting instructions:** Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.**Protection during firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.**SECTION 6 - ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures****General measures:** Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

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For non-emergency personnel**Emergency procedures:** Evacuate unnecessary personnel.**For emergency responders****Protective equipment:** Equip cleanup crew with proper protection.**Emergency procedures:** Ventilate area.**Environmental precautions** Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.**Methods and material for containment and cleaning up****Methods for cleaning up:** Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.**Reference to other sections** See Heading 8. Exposure controls and personal protection.**SECTION 7 - HANDLING AND STORAGE****Precautions for safe handling****Additional hazards when processed:** Handle empty containers with care because residual vapors are flammable. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.**Precautions for safe handling:** Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Use only outdoors or in a well-ventilated area. Avoid breathing mist, spray, vapors.**Hygiene measures:** Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling.**Conditions for safe storage, including any incompatibilities****Technical measures:** Proper grounding procedures to avoid static electricity should be followed.**Storage conditions:** Keep only in the original container in a cool, well ventilated place away from : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container closed when not in use. Keep in fireproof place.**Incompatible products:** Strong bases. Strong acids.**Incompatible materials:** Sources of ignition. Direct sunlight. Heat sources.**SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION****Control parameters****2-butoxyethanol (111-76-2)**

ACGIH	ACGIH TWA (ppm)	20 ppm
ACGIH	ACGIH STEL (ppm)	20 ppm
ACGIH	Remark (ACGIH)	Eye & URT irr
OSHA	OSHA PEL (TWA) (mg/m ³)	240 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	50 ppm

Exposure controls

Personal protective equipment: Avoid all unnecessary exposure.

Hand protection: Wear protective gloves.**Eye protection:** Chemical goggles or safety glasses.**Skin and body protection:** Wear suitable protective clothing.**Respiratory protection:** Wear appropriate mask.

Other information: Do not eat, drink or smoke during use.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Color:	Colorless
Odor:	characteristic
Odor threshold:	No data available
pH:	No data available
Melting point:	No data available
Freezing point:	No data available
Boiling point:	340 - 344 °F
Flash point:	154 - 158 °F
Relative evaporation rate (butyl acetate=1):	No data available
Flammability (solid, gas):	No data available

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Explosion limits:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available
Vapor pressure:	No data available
Relative density:	No data available
Relative vapor density at 20 °C:	No data available
Solubility Water:	Solubility in water of component(s) of the mixture :
Log Pow:	No data available
Auto-ignition temperature	446 - 473 °F
Decomposition temperature:	No data available
Viscosity:	No data available
Viscosity, kinematic:	No data available
Viscosity, dynamic	No data available

Other information No additional information available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity No additional information available

Chemical stability

Combustible liquid. May form flammable/explosive vapor-air mixture.

Possibility of hazardous reactions Not established.

Conditions to avoid Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

Incompatible materials Strong acids. Strong bases.

Hazardous decomposition products fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11 - TOXICOLOGICAL INFORMATION**Information on toxicological effects**

Acute toxicity: Oral: Harmful if swallowed. Dermal: Toxic in contact with skin. Inhalation: dust, mist: Harmful if inhaled.

BUTYL CELLOSOLVE

ATE US (oral) 532.663 mg/kg body weight

ATE US (dermal) 437.186 mg/kg body weight

2-butoxyethanol (111-76-2)

IARC group

3 - Not classifiable

Reproductive toxicity:

Not classified

Specific target organ toxicity (single exposure): Not classified

Specific target organ toxicity (repeated exposure): Not classified

Aspiration hazard: Not classified

Potential Adverse human health effects and symptoms: Based on available data, the classification criteria are not met. Harmful if swallowed. Harmful if inhaled. Toxic in contact with skin.

Symptoms/injuries after inhalation: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.

Symptoms/injuries after skin contact: Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin. Causes skin irritation.

Symptoms/injuries after ingestion: Swallowing a small quantity of this material will result in serious health hazard.

SECTION 12 - ECOLOGICAL INFORMATION**Toxicity****2-butoxyethanol (111-76-2)**

LC50 fish 1 116 ppm (96 h; Cyprinodon variegatus; Nominal concentration)

EC50 Daphnia 1 1700 mg/l (48 h; Daphnia sp.; Nominal concentration)

LC50 fish 2 1341 ppm (96 h; Lepomis macrochirus)

EC50 Daphnia 2 1720 mg/l (24 h; Daphnia magna)

TLM fish 1 100 - 1000,96 h; Pisces

TLM other aquatic organisms 1 100 - 1000,96 h

Threshold limit algae 1 900 mg/l (168 h; Scenedesmus quadricauda)

Threshold limit algae 2 35 mg/l (192 h; Microcystis aeruginosa)

Persistence and degradability**BUTYL CELLOSOLVE**

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Persistence and degradability 2-butoxyethanol (111-76-2)	Not established.
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Photodegradation in the air.
Biochemical oxygen demand (BOD)	0.71 g O ₂ /g substance
Chemical oxygen demand (COD)	2.20 g O ₂ /g substance
2-butoxyethanol (111-76-2)	
ThOD	2.305 g O ₂ /g substance
BOD (% of ThOD)	0.31 % ThOD
Bioaccumulative potential	
BUTYL CELLOSOLVE	
Bioaccumulative potential	Not established.
2-butoxyethanol (111-76-2)	
Log Pow	0.81 (Experimental value; BASF test; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
2-butoxyethanol (111-76-2)	
Surface tension	0.027 N/m (25 °C)
Other adverse effects	
Effect on the global warming:	No known ecological damage caused by this product.
Other information:	Avoid release to the environment.

SECTION 13 - DISPOSAL CONSIDERATIONS**Waste treatment methods**

Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to an approved hazardous waste plant and/or drum reconditioner.

Additional information: Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials: Hazardous waste due to toxicity. Avoid release to the environment.

SECTION 14 - TRANSPORT INFORMATION

Department of Transportation (DOT) In accordance with DOT Not regulated for transport

TDG No additional information available

Transport by sea No additional information available

Air transport No additional information available

SECTION 15 - REGULATORY INFORMATION**US Federal regulations****2-butoxyethanol (111-76-2)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

International regulations

CANADA	No additional information available
EU-Regulations	No additional information available
National regulations	No additional information available
US State regulations	No additional information available

SECTION 16 - OTHER INFORMATION

Other information: None.

Full text of H-phrases:

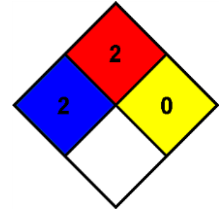
----- Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
----- Acute Tox. 4 (Inhalation: dust, mist)	Acute toxicity (inhalation: dust, mist) Category 4
----- Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
----- Flam. Liq. 4	Flammable liquids Category 4
----- Skin Irrit. 2	Skin corrosion/irritation Category 2
----- H227	Combustible liquid
----- H302	Harmful if swallowed
----- H311	Toxic in contact with skin

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-----	H315	Causes skin irritation
-----	H332	Harmful if inhaled
NFPA health hazard:	2	- Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
NFPA fire hazard:	2	- Must be moderately heated or exposed to relatively high temperature before ignition can occur.
NFPA reactivity:	0	- Normally stable, even under fire exposure conditions, and are not reactive with water.
HMIS III Rating Health:		
Flammability:	2	Moderate Hazard - Temporary or minor injury may occur
	2	Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)
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.



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