

## Section 1. Identification

Product name : BPB 59390 OXYGEN SCAVENGER  
Product code : BPB59390

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

Identified uses : Oxygen scavenger.

Print date : 12/5/2014.

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Version : 1

Supplier's details : Baker Petrolite  
A Baker Hughes Company  
12645 W. Airport Blvd.  
Sugar Land, TX 77478  
For Product Information/MSDSs Call: 800-231-3606  
(8:00 a.m. - 5:00 p.m. cst, Monday - Friday) 281-276-5400

Emergency telephone number (with hours of operation) : CHEMTREC: 800-424-9300 (U.S. 24 hour)  
Baker Petrolite: 800-231-3606  
(001)281-276-5400  
CANUTEC: 613-996-6666 (Canada 24 hours)  
CHEMTREC Int'l 01-703-527-3887 (International 24 hour)

## Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN SENSITIZATION - Category 1  
AQUATIC HAZARD (ACUTE) - Category 3

### GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : May cause an allergic skin reaction.  
Harmful to aquatic life.

### Precautionary statements

Prevention : Wear protective gloves. Avoid release to the environment. Avoid breathing vapor.  
Contaminated work clothing should not be allowed out of the workplace.

Response : IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.

Storage : Not applicable.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

### Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Carbohydrazide	5 - 10	497-18-7
Hydrazine	0.1 - 1	302-01-2

### Section 4. First aid measures

#### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Continue to rinse for at least 10 minutes. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

#### Most important symptoms/effects, acute and delayed

##### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

##### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : irritation, redness
- Ingestion** : No specific data.

#### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

## Section 4. First aid measures

- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous thermal decomposition products** : carbon dioxide, carbon monoxide, nitrogen oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## Section 6. Accidental release measures

- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Dike spill area and do not allow product to reach sewage system or surface or ground water. Notify any reportable spill to authorities. (See section 12 for environmental risks and 13 for disposal information.) Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

If RQ (Reportable Quantity) is exceeded, report to National Spill Response Office at 1-800-424-8802.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

### Additional information

Spills of this product are very slippery. Spilled material should be absorbed onto an inert material and scooped up. The area should be thoroughly flushed with water and washed to remove residue. If area is still slippery, apply more dry-sweeping compound.

## Section 8. Exposure controls/personal protection

### Control parameters

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			
Ingredients:	List name	ppm	mg/m <sup>3</sup>	Other	ppm	mg/m <sup>3</sup>	Other	ppm	mg/m <sup>3</sup>	Other	Notations
Hydrazine	US ACGIH	0.01	0.01	-	-	-	-	-	-	-	[1]
	OSHA PEL	1	1.3	-	-	-	-	-	-	-	[1]
	OSHA PEL 1989	0.1	0.1	-	-	-	-	-	-	-	[1]

Consult local authorities for acceptable exposure limits.

Only components of this product with established exposure limits appear in the box above.

If OSHA permissible exposure levels are shown above they are the OSHA 1989 levels or are from subsequent OSHA regulatory actions. Although the 1989 levels have been vacated the 11th Circuit Court of Appeals, Baker Hughes recommends that these lower exposure levels be observed as reasonable worker protection.

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

## Section 8. Exposure controls/personal protection

### Individual protection measures

Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Wear chemical safety goggles. When transferring material wear face-shield in addition to chemical safety goggles.
Hand protection	: Chemical-resistant gloves.
Skin protection	: Wear long sleeves to prevent repeated or prolonged skin contact.
Respiratory protection	: If a risk assessment indicates it is necessary, use a properly fitted, air purifying or supplied air respirator complying with an approved standard. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

### Appearance

Physical state	: Liquid. [Clear to hazy.]
Color	: Colorless to light amber.
Odor	: Odorless.
Odor threshold	: Not available.
pH	: 9,4 to 10,4
	: Neat-without dilution.
Melting/freezing point	: -3.9°C (25°F)
Boiling point	: Not available.
Initial Boiling Point	: Not available.
Flash point	: Closed cup: >100°C (>212°F) [SFCC]
Burning time	: Not applicable.
Burning rate	: Not applicable.
Evaporation rate	: Not available.
Flammability (solid, gas)	: Slightly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: 2.5 kPa (18.5 mm Hg) @ 21.1°C (Calculated Value for all Components.)
Vapor density	: >1 [Air = 1]
Relative density	: 1.0252 (15.6°C)
Density	: 8.54 (lbs/gal)
Solubility in water	: Soluble
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Dynamic (15.6°C): 1.3 cP
VOC	: Not available.
Pour Point	: Not available.

## Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific data.
- Incompatible materials** : Reactive or incompatible with the following materials: oxidizing materials and acids. If this product is mixed with mineral acids, fumes of hydrazine will be generated. Hydrazine is toxic, a carcinogen, and a California Proposition 65 chemical that can cause cancer. It has an ACGIH TWA exposure limit of 0.01 ppm. Its OSHA TWA exposure limit is 1 ppm. It has a CERCLA and DOT Reportable Quantity of 1 lb (0.454 kg).
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Hydrazine	LC50 Inhalation Gas.	Rat	570 ppm	4 hours
	LC50 Inhalation Vapor	Rat	750 g/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	91 mg/kg	-
	LD50 Oral	Rat	60 mg/kg	-

#### Irritation/Corrosion

No applicable toxicity data

#### Sensitization

No applicable toxicity data

#### Mutagenicity

No applicable toxicity data

#### Carcinogenicity

Product/ingredient name	OSHA	IARC	NTP
Hydrazine	None.	2B	Reasonably anticipated to be a human carcinogen.

#### Reproductive toxicity

No applicable toxicity data

#### Teratogenicity

No applicable toxicity data

#### Specific target organ toxicity (single exposure)

Not applicable.

#### Specific target organ toxicity (repeated exposure)

Not applicable.

#### Aspiration hazard

## Section 11. Toxicological information

Not available.

Information on the likely routes of exposure : Routes of entry anticipated: Dermal, Inhalation.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

#### Potential chronic health effects

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Hydrazine	Acute EC50 0.02 ul/L Fresh water	Algae - Pseudokirchneriella subcapitata	4 days
	Acute EC50 0.006 ul/L Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 160 to 190 µg/l Fresh water	Daphnia - Daphnia pulex - Larvae	48 hours
	Acute LC50 40 µg/l Fresh water	Crustaceans - Hyalella azteca	48 hours
	Acute LC50 610 to 1340 µg/l Fresh water	Fish - Poecilia reticulata	96 hours
	Chronic NOEC 0.001 ul/L Fresh water	Algae - Pseudokirchneriella subcapitata	3 days

### Persistence and degradability


Not available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	UN3082	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains: Hydrazine)	-	-	-
Transport hazard class(es)	9 	-	-	-
Packing group	III	-	-	-
Environmental hazards	Yes.	No.	No.	No.
Additional information	This material is Not Regulated if transported in a package that does not meet or exceed the Reportable Quantity (RQ).	-	-	-

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not available.

**DOT Reportable Quantity** Hydrazine, 3346 gal of this product.

**Marine pollutant** Not available.

**North-America NAERG** : 171



## Section 15. Regulatory information

U.S. Federal regulations : TSCA 12(b) one-time export: No products were found.  
 TSCA 12(b) annual export notification: No products were found.  
 United States inventory (TSCA 8b): All components are listed or exempted.  
 Clean Water Act (CWA) 307: No products were found.  
 Clean Water Act (CWA) 311: No products were found.

Clean Air Act Section 112 : Not listed  
 (b) Hazardous Air  
 Pollutants (HAPs)

### SARA 302/304

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Hydrazine	<0.1	Yes.	1000	119.9	1	0.12

### SARA 311/312

Classification : Immediate (acute) health hazard

### SARA 313

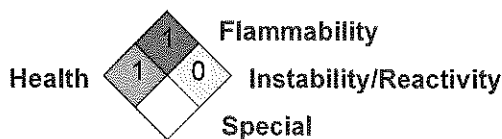
Supplier notification : No products were found.

### Canada

Canada (CEPA DSL): : All components are listed or exempted.

## Section 16. Other information

### National Fire Protection Association (U.S.A.)



### History

Date of printing : 12/5/2014.

☑ Indicates information that has changed from previously issued version.

### Notice to reader

**NOTE:** The information on this MSDS is based on data which is considered to be accurate. Baker Hughes, however, makes no guarantees or warranty, either expressed or implied of the accuracy or completeness of this information.

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