



Material Safety Data Sheet (MSDS)

Date 7/22/2017

Product Name: TKB Black Oxide Concentrate

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1. Product Identification

INCI	CI Number	CAS
Glycerine	n/a	56-81-5
Iron Oxide	77499	1317-61-9

2. Physical and Chemical Properties

		HMIS
Solubility in Oil	NO	Health 1
Solubility in Water	NO	Flammability 1
pH Value	n/a	Reactivity 0
Color	Black	Personal Protection G
Flash Point	Closed Cup 160 C	
Bulk Density	3.1 kg/l	
Flammability	Lower 0.9%	

3. Stability and Reactivity

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Avoid contact with incompatible materials, excess heat and ignition, sources, moisture.

Incompatibility with various substances: Highly reactive with oxidizing agents.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity:

Hygroscopic. Glycerin is incompatible with strong oxidizers such as chromium trioxide, potassium chlorate, or potassium permanganate. Glycerin may react violently with acetic anhydride, aniline and nitrobenzene, chromic oxide, lead oxide and fluorine, phosphorous triiodide, ethylene oxide and heat, silver perchlorate, sodium peroxide, sodium hydride.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

4. Handling and Storage and Notes

Precautions:

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Hygroscopic.

5. Accidental Release Measures

Isolate spill area and keep unauthorized personnel away.

Prevent entry into water ways. Surface may become slippery after spillage. Best method of cleanup: Mop and water with detergent



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6. Exposures Control and Personal Protection

TWA: 10 (mg/m³) from ACGIH (TLV) [United States] [1999] Inhalation Total. TWA: 15 (mg/m³) from OSHA (PEL) [United States] Inhalation Total. TWA: 10 STEL: 20 (mg/m³) [Canada] TWA: 5 (mg/m³) from OSHA (PEL) [United States]

7. Hazards Identification

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys. Repeated or prolonged exposure to the substance can produce target organs damage.

8. First Aid Measures

Inhalation: Not an anticipated hazard

Ingestion: Not a hazard under normal use. Do not ingest. May cause gastric discomfort.

Skin Contact: Wash with soap and water

Eye contact: Flush eyes with water

9. Firefighting Measures

May be flammable at higher temperatures.

370°C (698°F)(NFPA Fire Protection Guide to Hazardous Materials, 13th ed., 2002; NIOSH ICSC, 2001; CHRIS, 2001) 392 C (739 F) (Lewis, 1997)

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Glycerine is incompatible with strong oxidizers such as chromium trioxide, potassium chlorate or potassium Permanganate

Explosive glyceryl nitrate is formed with a mixture of glycerine and nitric and sulfuric acids.

Perchloric acid , lead oxide + glycerin form perchloric esters which may be explosive

Glycerin and chlorine may explode if heated and confined.

10. Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact.

Toxicity to Animals:

WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral

toxicity (LD50): 4090 mg/kg [Mouse]. Acute dermal toxicity (LD50): 10000 mg/kg [Rabbit]. Acute toxicity of the mist (LC50):



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>570 mg/m³ 1 hours [Rat].

Chronic Effects on Humans: May cause damage to the following organs: kidneys.

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals:

TDL (rat) - Route: Oral; Dose: 100 mg/kg 1 day prior to mating. TDL (human) - Route: Oral; Dose: 1428 mg/kg

Special Remarks on Chronic Effects on Humans:

Glycerin is transferred across the placenta in small amounts. May cause adverse reproductive effects based on animal data (Paternal Effects (Rat): Spermatogenesis (including genetic material, sperm morphology, motility, and count), Testes, epididymis, sperm duct). May affect genetic material.

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Low hazard for normal industrial handling or normal workplace conditions. Skin: May cause skin irritation. May be absorbed through skin Eyes: May cause eye irritation with stinging, redness, burning sensation, and tearing, but no eye injury. Ingestion: Low hazard. Low toxicity except with very large doses. When large doses are ingested, it can cause gastrointestinal tract irritation with thirst (dehydration), nausea or vomiting diarrhea. It may also affect behavior/central nervous system/nervous system (central nervous system depression, general anesthetic, headache, dizziness, confusion, insomnia, toxic psychosis, muscle weakness, paralysisconvulsions), urinary system/kidneys

11. Disposal Considerations

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

12. Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Federal and State Regulations:

Illinois toxic substances disclosure to employee act: Glycerin Rhode Island RTK hazardous substances: Glycerin Pennsylvania

RTK: Glycerin Minnesota: Glycerin Massachusetts RTK: Glycerin Tennessee - Hazardous Right to Know: Glycerin TSCA 8(b)

inventory: Glycerin

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC):

Not available S24/25- Avoid contact with skin and eyes.

13. Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is to be the best of this company's knowledge and believed accurate and reliable as of the date indicated. However no representation, warranty or guarantee of any kind, express or implied is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage, or expense direct or consequential arising out of use. It is the user's responsibility to satisfy themselves as to the suitability and completeness of such information for their own particular use.