


**GHS
SAFETY DATA SHEET**

I. PRODUCT IDENTIFICATION		
MANUFACTURER/SUPPLIER Exide Technologies 13000 Deerfield Parkway, Bldg. 200 Milton, GA 30004	CHEMICAL/TRADE NAME (as used on label)	Sodium Sulfate - Na ₂ SO ₄
	PRODUCT ID	N/A
FOR FURTHER INFORMATION Primary Contact: Exide SDS Support (770) 421-3485 Secondary Contact: Joe Bolea (423) 989-6377 Fred Ganster (610) 921-4052	CHEMICAL FAMILY/ CLASSIFICATION	Disodium sulfate, Sulfuric acid disodium salt
	FOR EMERGENCY CHEMTREC (800) 424-9300 (703) 527-3887 – Collect 24-hour Emergency Response Contact Ask for Environmental Coordinator	
II. HAZARD IDENTIFICATION		
		
Signal Word: Warning		
Category:	GHS Codes	Description
Health:	H315	causes skin irritation
	H319	causes serious eye irritation
	P260	Do not breathe dust/fume/gas/mist/vapors/spray
	P264	Wash affected part thoroughly after handling
	P280	Wear protective gloves
Handling:	P402	Store in a dry place
	P404	Store in a closed container
WARNING: None		
Reactivity: None		
III. COMPOSITION/INFORMATION ON INGREDIENTS		
<i>Ingredient</i>	<i>CAS Number</i>	<i>% by Wt.</i>
Sodium Sulfate	7757-82-6	100
IV. FIRST AID MEASURES		
Take proper precautions to ensure you own health and safety before attempting to rescue a victim and provide first aid.		
Inhalation	Remove from exposure. Get medical attention if cough or other symptoms appear.	
Skin Contact:	Wash thoroughly with soap and water. Get medical attention if irritation develops or persists.	
Eye Contact:	Flush with copious quantities of water for at least 15 minutes. Get immediate medical attention.	
Ingestion:	victim is conscious and alert, give 2 – 4 cupfuls of milk or water and induce vomiting by one teaspoon of Ipecac syrup or placing the finger at the back of the throat. Get immediate medical attention.	
V. FIRE FIGHTING MEASURES		
Flash Point:	Not Applicable	
Flammable Limits:	Not Applicable	
Extinguishing media:	CO ₂ ; foam; dry chemical, water spray. Use extinguishing media most appropriate for the surrounding fire.	
Fire Fighting Procedures:	Use full body fire fighting clothing and full-face piece positive pressure, self-contained breathing apparatus.	
Hazardous Combustion Products:	Extremely high temperatures may produce sulfur dioxide gas.	

VI. ACCIDENTAL RELEASE MEASURES

Spilled material should be vacuumed, or swept where vacuuming is not feasible, and placed into suitable dry containers for later disposal. Avoid generating dusty conditions. Never use compressed air as a means of cleaning.

VII. HANDLING AND STORAGE

Handling:

Use with adequate ventilation. Minimize dust generation and accumulation. Avoid breathing airborne dust. Avoid contact with the eyes, skin, and clothing. Avoid ingestion and inhalation. Keep in closed containers.

Storage:

Store in a cool, dry, well-ventilated area away from incompatible materials.

VIII. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational Exposure Limits (mg/m³)

Ingredient:	US OSHA	US ACGIH	US NIOSH	Quebec PEV	Ontario OEL	EU OEL
Sodium Sulfate	N/A	N/A	N/A	N/A	N/A	N/A

Note:

N/A: not applicable

Engineering Controls (Ventilation):

Ventilation, as described in the Industrial Ventilation Manual produced by the American Conference of Governmental Industrial Hygienists, should be provided in areas where acute and chronic exposures are possible.

Hygiene Practices:

Wash hands thoroughly before eating, drinking or smoking.

Respiratory Protection (NIOSH/MSHA approved):

Where exposure is above the permissible exposure limit or the threshold limit values, the minimum respiratory protection recommended is a negative pressure respirator with cartridges that are NIOSH/MSHA approved against dust, mist, and fumes having a TWA of 0.05 mg/M³.

Skin Protection:

Gloves should be worn when handling the product.

Eye Protection:

Safety glasses or goggles should be worn when using this product to prevent particles of dust from getting into the eyes.

Other Protection:

Coveralls or other full body clothing shall be worn during product use and properly laundered after use. Other safety equipment should be worn as appropriate for the industrial environment. Personal clothing and shoes should be protected from contamination with this product.

IX. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point@760 mm Hg	Not Applicable	Specific Gravity @ 70°F (H ₂ O=1)	2.7
Melting Point	1623°F/884°C	Vapor Pressure (mm Hg)	Not Applicable
% Solubility in Water	30-42	pH	4.9 (5% solution)
Evaporation Rate (Butyl acetate=1)	Not Applicable	Vapor Density (AIR=1)	Not Applicable
Appearance and Odor	Bright white powder, no apparent odor	Viscosity	2.48 (22% solution)
Octanol Water Partition Coefficient (K _{ow})	Not Available	% Volatiles by Weight	Not Applicable

X. STABILITY & REACTIVITY DATA

Stability: Stable X Hygroscopic: absorbs moisture or water from the air.
Unstable _____

Conditions to Avoid: Incompatible materials, exposures to moist air or water.

Incompatibilities: Avoid contact with magnesium and strong acids. Reacts explosively with aluminum. No further concern for

mechanical impact.

Hazardous Decomposition Products:

Extremely high temperatures may produce sulfur dioxide gas.

Hazardous Polymerization: Will Not Occur

XI. TOXICOLOGICAL DATA

Routes of Entry:

Sodium sulfate is harmful by inhalation, ingestion, skin contact, and eye contact.

Acute Toxicity:

Inhalation LD₅₀: No information
Oral LD₅₀: mouse: 5989 mg/kg

Inhalation:

May cause respiratory tract irritation.

Ingestion:

May cause irritation of the digestive tract.

Skin Contact:

May cause irritation after contact. Not a dermal sensitizer.

Eye Contact:

May cause irritation and conjunctivitis

Synergistic Products:

No known synergistic products

XII. ECOLOGICAL INFORMATION

Environmental Fate: Sodium sulfate may persist indefinitely in the environment, but is not likely to show bioaccumulation or food chain contamination effects. If diluted with water and released directly or indirectly into the environment, this chemical is not expected to have a significant impact. Log P_{ow} = 3

Environmental Toxicity: Aquatic Toxicity:

Bluegill/sunfish	96-hr LC ₅₀	12,750 ppm
Fathead minnow	LC ₅₀	13,500-14,000 mg/L
<i>Daphnia magna</i> :	96-hr LC ₅₀	4547 mg/L

XIII. DISPOSAL INFORMATION

US:

Dispose of industrial wastes in accordance with local, state, and federal regulations.

XIV. TRANSPORT INFORMATION

GROUND – US-DOT/CAN-TDG/EU-ADR/APEC-ADR:

Not regulated as a hazardous material

AIRCRAFT – ICAO- IATA:

Not regulated as a hazardous material

VESSEL – IMO-IMDG:

Not regulated as a hazardous material

ADDITIONAL INFORMATION:

Transport may require packaging and paperwork, including the Nature and Quantity of goods, per applicable origin/destination/customs points as-shipped.

XV. REGULATORY INFORMATION

US

CERCLA (Superfund) and EPCRA:

Sodium sulfate is not a CERCLA hazardous substance. Spills of sodium sulfate are not reportable under CERCLA.

TSCA: Sodium sulfate (Sulfuric acid disodium salt) is listed in the TSCA Inventory as a Chemical in Commerce, however, it is exempt from reporting under the Inventory Update Rule (40 CFR 710(b)).

RCRA: Unused sodium sulfate is not a hazardous waste if disposal is required.

CAA: Exide Technologies supports preventative actions concerning ozone depletion in the atmosphere due to emissions of CFC's and other ozone depleting chemicals (ODC's), defined by the USEPA as Class I substances. Pursuant to Section 611 of the

Clean Air Act Amendments (CAAA) of 1990, finalized on January 19, 1993, Exide established a policy to eliminate the use of Class I ODC's prior to the May 15, 1993 deadline.

SARA Title III: Sodium sulfate is not a listed "extremely hazardous substance" (Section 304) or a listed "toxic chemical" (Section 313).

US State Notifications & Warnings:	Identification	Notifications/Warning
MA	Right to Know	None
PA	Right to Know	None
CA	Prop 65	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.
Country/Organization	Identification	Notifications/Warning
Canada	All chemical substances in this product are listed on the CEPA DSL/NDSL or are exempt from list requirements.	This product is not classified as hazardous by Canadian regulation. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. Refer to the Controlled Products Regulations for product labeling requirements
EU	European Inventory of Existing Commercial Chemical Substances (EINECS):	All ingredients remaining in the finished product as distributed into commerce are exempt from, or included on, the European Inventory of Existing Commercial Chemical Substances.

XVI. OTHER INFORMATION

DATE ISSUED: September 11, 2013

OTHER INFORMATION:	Distribution into Quebec to follow Canadian Controlled Product Regulations (CPR) 24(1) and 24(2). Distribution into the EU to follow applicable Directives to the Use, Import/Export of the product as-sold.
SOURCES OF INFORMATION:	International Agency for Research on Cancer (1987), IARC Monographs on the Evaluation of Carcinogenic Risks to Humans: Overall Evaluations of Carcinogenicity: An updating of IARC Monographs Volumes 1-42, Supplement 7, Lyon, France. Ontario Ministry of Labor Regulation 654/86. Regulations Respecting Exposure to Chemical or Biological Agents.

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