

# SAFETY DATA SHEET

## Sealed Maintenance-free Lead Acid Batteries

### 1. IDENTIFICATION OF THE PRODUCT AND COMPANY

#### PRODUCT NAME

Sealed maintenance-free lead acid batteries

#### PRODUCT CODE

2UKG8 2UKG9 2UKH1 2UKH2 2UKH3 2UKH4 2UKH5 2UKH6 2UKH7 2UKH8 2UKJ1 2UKJ2 2UKJ3 2UKJ4 2UKJ5  
 2UKJ6 2UKJ7 2UKJ8 2UKJ9 2UKK1 2UKK2 2UKK3 2UKK4 2UKK5 2UKK6 2UKK7 2UKK8 2UKK9 2UKL1 2UKL2 2UKL3  
 2UKL4 2UKL5 2UKL6 2UKL7 2UKL8 5EFE7 5EFE8 5EFE9 5EFF1 5EFF2 5EFF3 5EFF4 5EFF5 5EFF6 5EFF7 5EFF8  
 5EFF9 5EFG0 5EFG1 5EFG2 5EFG3 5EFG4 5EFG5 5EFG6 5EFG7 5EFG8 5EFG9 5EFH0 5EFH1 5EFH2 5EFH3 5EFH4 5EFH5  
 5EFH6 48H470 48H471

#### MANUFACTURER

Grainger Global Sourcing  
 100 Grainger Parkway,  
 Lake Forest, IL 60045 USA

#### EMERGENCY CALL

1-800-356-2501 (Grainger Technical Support)  
 1-800-424-9300, 1-703-527-3887 (Non-US) (In the case of Poisoning, contact ChemTrec)

### 2. HAZARD IDENTIFICATION

**NOTE: Under normal conditions of battery use, internal components will not present a health hazard. The following information is provided for battery electrolyte (acid) and lead for exposure that may occur during battery production or container breakage or under extreme heat conditions such as fire.**



Signal Word: Danger

Category:	GHS Codes	Description
Health:  STOT RE 2 Acute Tox. 4 Repr. 1A Skin Corr. 1A Flam. Gas 1  Aquatic Chronic 1 Aquatic Acute 1	H302 H314 H332 H360 H373  H220 H410 P260 P301/330/331 P303/361/353  P304/340  P305/351/338  P310	Harmful if swallowed. Causes severe skin burns and eye damage. Harmful if inhaled. May damage fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. Extremely flammable gas (hydrogen) Very toxic to aquatic life with long lasting effects. Do not breathe dust/fume/gas/mist/vapors/spray. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
Handling:	P210  P260 P264 P280  P403 P405 P391 P273 P501	Keep away from heat/sparks/open flames/hot surfaces. No smoking Do not breathe dust/fume/gas/mist/vapors/spray Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Store in well-ventilated area Store locked up. Collect spillage Avoid release to the environment Dispose of contents/container in accordance with local/regional/national/international regulation.

**WARNING:** Batteries subjected to abusive charging at excessively high currents for prolonged periods of time without vent caps in place may create a surrounding atmosphere of the offensive strong inorganic acid mist containing sulfuric acid.

**Reactivity:** Organic materials, chlorates, carbides, fulminates, water, powdered metals. Reacts violently with water with evolution of heat. Corrosive to metals. Strong oxidizers, hydrogen peroxide, acids.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS Number	% by Wt.	
Inorganic compounds of:			
Lead	7439-92-1	44-57	
Antimony	7440-36-0	1.0	
Lead Dioxide	1309-60-0	19-26	
Non-Hazardous Ingredient	N/A	15-22	
Electrolyte (sulfuric acid)	7664-93-9	23-27	

**Note:**

Components are for a fully charged lead acid design. Inorganic lead and electrolyte (water and sulfuric acid solution) are the primary components of every battery manufactured by Grainger Global Sourcing or its subsidiaries. Other ingredients may be present dependent upon battery type. Polypropylene is the principal case material of automotive and commercial batteries. Electrolyte in this product is non-spill and completely absorbed within a solid matrix.

### 4. FIRST AID MEASURES

**Take proper precautions to ensure you own health and safety before attempting to rescue a victim and provide first aid.**

**Inhalation:** Electrolyte: Remove to fresh air immediately. If breathing is difficult, give oxygen.  
Lead compounds: Remove from exposure, gargle, wash nose and lips; consult physician.

**Skin Contact:** Electrolyte: Flush with large amounts of water for at least 15 minutes; remove contaminated clothing completely, including shoes, and do not wear again until cleaned. If acid is splashed on shoes, remove and discard if they contain leather.  
Lead compounds: Wash immediately with soap and water. Lead compounds are not readily absorbed through the skin.

**Eye Contact:** Electrolyte and Lead compounds: Flush immediately with large amounts of water for at least 15 minutes; consult physician immediately.

**Ingestion:** Electrolyte: Give large quantities of water; **do not** induce vomiting; consult physician.  
Lead compounds: Consult physician immediately.

### 5. FIREFIGHTING MEASURES

**Flash Point:** Not Applicable

**Flammable Limits:** LEL = 4.1% (hydrogen gas in air); UEL = 74.2%

**Extinguishing media:** CO<sub>2</sub>; foam; dry chemical

**Fire Fighting Procedures:**

Use positive pressure, self-contained breathing apparatus. Beware of acid splatter during water application and wear acid-resistant clothing, gloves, face and eye protection. If batteries are on charge, shut off power to the charging equipment, but, note that strings of series connected batteries may still pose risk of electric shock even when charging equipment is shut down.

**Hazardous Combustion Products:**

In operation, or when on charge, batteries generate and release flammable hydrogen and oxygen gases (hydrogen is highly flammable and oxygen supports combustion). They must always be assumed to contain this gas which, if ignited by burning cigarette, naked flame or spark, may cause battery explosion with dispersion of casing fragments and corrosive liquid electrolyte. Carefully follow manufacturer's instructions for installation and service. Keep away all sources of gas ignition and do not allow metallic articles to simultaneously contact the negative and positive terminals of a battery.

### 6. ACCIDENTAL RELEASE MEASURES

Remove combustible materials and all sources of ignition. Stop flow of material and contain spill by diking with soda ash, etc. Carefully neutralize spill with soda ash, etc. Make certain mixture is neutral then collect residue and place in a drum or other suitable container with a label specifying "contains hazardous waste" or (if uncertain call distributor regarding proper labeling procedures). Dispose of as hazardous waste. If battery is leaking, place battery in a heavy duty plastic bag. Wear acid resistant boots, face shield, chemical splash goggles and acid resistant gloves. **Do not allow discharge of acid to sewer.** Acid must be managed in accordance with approved local, state, and federal requirements. Consult state environmental agency and/or federal EPA.

### 7. HANDLING AND STORAGE

**Handling:**

Single batteries pose no risk of electric shock but there may be increasing risk of electric shock from strings of connected batteries exceeding three 12-volt units. Batteries are non-spillable - potential for exposure to contents only during recycling or if outer casing is cracked or damaged.

**Storage:**

Store batteries under roof in cool, dry, well-ventilated areas that are separated from incompatible materials and from activities which may create flames, sparks, or heat. Keep away from metallic objects that could bridge the terminals on a battery and create a dangerous short-circuit.

**Charging:**

There is a possible risk of electric shock from charging equipment and from strings of series connected batteries, whether or not being charged. Shut-off power to chargers whenever not in use and before detachment of any circuit connections. Batteries being charged will generate and release flammable hydrogen gas. Charging space should be ventilated. Keep battery vent caps in position. Prohibit smoking and avoid creation of flames and sparks nearby. Wear face and eye protection when near batteries being charged.

**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

Ingredient:	Occupational Exposure Limits (mg/m <sup>3</sup> )					
	US OSHA	US ACGIH	US NIOSH	Quebec PEV	Ontario OEL	EU OEL
Inorganic forms of:						
Lead	0.05	0.05	0.05	0.05	0.05	0.15(a)
Lead Dioxide	0.05(b)	0.05(b)	0.05(b)	0.05(b)	0.05(b)	0.15(a)
Antimony	0.5	0.5	0.5	0.5	0.5	0.5(a,d)
Electrolyte (sulfuric acid/water solution)	1	0.2	1	1	0.2	0.05(c)

## NOTES:

(a) as inhalable aerosol (d) based on OELs of Austria, Belgium, Denmark, France, Germany, Netherlands, Switzerland, & UK  
 (b) as inorganic lead  
 (c) thoracic fraction

**Engineering Controls (Ventilation):**

Store and handle in well-ventilated area. If mechanical ventilation is used, components must be acid-resistant. Handle batteries cautiously. Make certain vent caps are on securely. If battery case is damaged, avoid bodily contact with internal components. Wear protective clothing, eye and face protection, when charging or handling batteries. Follow all manufacturers' recommendations when stacking or palletizing. Do not allow metallic materials to simultaneously contact both the positive and negative terminals of the batteries. Use a battery carrier to lift a battery or place hands at opposite corners to avoid spilling acid through the vents. Avoid contact with internal components of the batteries.

**Hygiene Practices:**

Wash hands thoroughly before eating, drinking or smoking after handling batteries.

**Respiratory Protection (NIOSH/MSHA approved):**

None required under normal conditions. When concentrations of sulfuric acid mist are known to exceed PEL, use NIOSH or MSHA-approved respiratory protection.

**Skin Protection:**

None required under normal conditions. If battery case is damaged, use rubber or plastic acid-resistant gloves with elbow-length gauntlet, acid-resistant apron, clothing, and boots.

**Eye Protection:**

None required under normal conditions. If battery case is damaged, chemical goggles or face shield.

**Other Protection:**

In areas where water and sulfuric acid solutions are handled in concentrations greater than 1%, emergency eyewash stations and showers should be provided, with unlimited water supply.

**9. PHYSICAL AND CHEMICAL PROPERTIES - ELECTROLYTE**

Boiling Point@760 mm Hg	219 to 237° F	Specific Gravity @ 77°F (H <sub>2</sub> O=1)	1.1394 to 1.3028
Melting Point	Not Applicable	Vapor Pressure (mm Hg)	13.5 to 20.8
% Solubility in Water	100	pH	Greater than 1
Evaporation Rate (Butyl acetate=1)	Less Than 1	Vapor Density (AIR=1)	Greater than 1
Appearance and Odor Threshold	Sulfuric Acid: A clear liquid with a sharp, penetrating, pungent odor.  A battery is a manufactured article; no apparent odor.	Viscosity	Not applicable
Octanol Water Partition Coefficient (K <sub>ow</sub> )	Not Applicable	% Volatiles by Volume @70°F	Not Applicable

Note: The properties above reflect 20-40% Sulfuric acid

## 10. STABILITY & REACTIVITY DATA

**Stability:** Stable

**Conditions to Avoid:** Prolonged overcharging and overheating current; sparks and other sources of ignition.

**Incompatibilities:** (materials to avoid)

Electrolyte: Contact of sulfuric acid with combustibles and organic materials may cause fire and explosion. Also reacts violently with strong reducing agents, most metals, sulfur trioxide gas, strong oxidizers, and water. Contact with metals may produce toxic sulfur dioxide fumes and may release flammable hydrogen gas. No further concern for mechanical impact

Lead compounds: Avoid contact with strong acids, bases, halides, halogenates, potassium nitrate, permanganate, peroxides, nascent hydrogen, carbides, sulfides phosphorus, sulfur and reducing agents.

**Hazardous Decomposition Products:**

Electrolyte: Sulfur trioxide, carbon monoxide, sulfuric acid mist, sulfur dioxide, hydrogen sulfide, hydrogen.

Lead compounds: Temperatures above the melting point are likely to produce toxic metal fume, vapor, or dust; contact with strong acid or base or presence of nascent hydrogen may generate highly toxic arsine gas.

**Hazardous Polymerization:** Will Not Occur

## 11. TOXICOLOGICAL DATA

**Routes of Entry:**

Electrolyte: Harmful by all routes of entry. Under normal conditions of use, sulfuric acid vapors and mist are not generated. Sulfuric acid vapors and mist may be generated when product is overheated, oxidized, or otherwise processed or damaged.

Lead compounds: Under normal conditions of use, lead dust, vapors, and fumes are not generated. Hazardous exposure can occur only when product is heated above the melting point, oxidized or otherwise processed or damaged to create dust, vapor, or fume.

**Acute Toxicity:**

Inhalation LD<sub>50</sub>: Electrolyte: LC<sub>50</sub> rat: 375 mg/m<sup>3</sup>; LC<sub>50</sub>: guinea pig: 510 mg/m<sup>3</sup>

Elemental Lead: Acute Toxicity Point Estimate = 4500 ppmV (based on lead bullion)

Oral LD<sub>50</sub>:

Electrolyte: rat: 2140 mg/kg

Elemental lead: Acute Toxicity Estimate (ATE) = 500 mg/kg body weight (based on lead bullion)

**Inhalation:**

Electrolyte: Breathing of sulfuric acid vapors or mists may cause severe respiratory irritation.

Lead compounds: Inhalation of lead dust or fumes may cause irritation of upper respiratory tract and lungs.

**Ingestion:**

Electrolyte: May cause severe irritation of mouth, throat, esophagus, and stomach.

Lead compounds: Acute ingestion may cause abdominal pain, nausea, vomiting, diarrhea, and severe cramping. This may lead rapidly to systemic toxicity. Acute ingestion should be treated by physician.

**Skin Contact:**

Electrolyte: Severe irritation, burns, and ulceration. Sulfuric acid is not readily absorbed through the skin and is not a dermal sensitizer.

Lead compounds: Not readily absorbed through the skin and are not dermal sensitizers.

**Eye Contact:**

Electrolyte: Severe irritation, burns, cornea damage, blindness.

Lead compounds: May cause eye irritation.

**Synergistic Products:**

Electrolyte: No known synergistic products

Lead compounds: Synergistic effects have been noted with heavy metals (arsenic, cadmium, mercury), N-nitroso-N-(hydroxyethyl)ethylamine, N-(4-fluoro-4-biphenyl)acetamide, 2-(nitrosoethylamine)ethanol, and benzo[a]pyrene.

Antimony oxide: No synergistic effects found

**Additional Information:**

**Medical Conditions Generally Aggravated by Exposure:**

Overexposure to sulfuric acid mist may cause lung damage and aggravate pulmonary conditions. Contact of electrolyte (water and sulfuric acid solution) with skin may aggravate skin diseases such as eczema and contact dermatitis. Contact of electrolyte (water and sulfuric acid solution) with eyes may damage cornea and/or cause blindness. Lead and its compounds can aggravate some forms of

kidney, liver, and neurologic diseases.

**Additional Health Data:**

All heavy metals, including the hazardous ingredients in this product, are taken into the body primarily by inhalation and ingestion. Most inhalation problems can be avoided by adequate precautions such as ventilation and respiratory protection covered in Section 8. Follow good personal hygiene to avoid inhalation and ingestion: wash hands, face, neck and arms thoroughly before eating, smoking or leaving the work site. Keep contaminated clothing out of non-contaminated areas, or wear cover clothing when in such areas. Restrict the use and presence of food, tobacco and cosmetics to non-contaminated areas. Work clothes and work equipment used in contaminated areas must remain in designated areas and never taken home nor laundered with personal non-contaminated clothing.

This product is intended for industrial use only and should be isolated from children and their environment.

**12. ECOLOGICAL INFORMATION**

**Environmental Fate:** lead is very persistent in soil and sediments. No data on environmental degradation. Mobility of metallic lead between ecological compartments is slow. Bioaccumulation of lead occurs in aquatic and terrestrial animals and plants but little bioaccumulation occurs through the food chain. Most studies include lead compounds and not elemental lead.

**Environmental Toxicity: Aquatic Toxicity:**

Sulfuric acid: 24-hr LC<sub>50</sub>, freshwater fish (*Brachydanio rerio*): 82 mg/L

96 hr- LOEC, freshwater fish (*Cyprinus carpio*): 22 mg/L

Lead: 48 hr LC<sub>50</sub> (modeled for aquatic invertebrates): <1 mg/L, based on lead bullion

**13. DISPOSAL INFORMATION**

**US**

Sulfuric Acid: Neutralize as described above for a spill, collect residue and place in a container labeled as containing hazardous waste. Dispose of as a hazardous waste. If uncertain about labeling procedures, call your local battery distributor or listed contact. DO NOT FLUSH LEAD CONTAMINATED ACID TO SEWER.

Spent batteries Send to secondary lead smelter for recycling following applicable federal, state, and local regulations.

**14. TRANSPORT INFORMATION**

**Proper Shipping Name:** Batteries, Non-Spillable ,Electric Storage

**U.S DOT (US Department of Transportation):** Unregulated, meets the requirement of 49 CFR 173.159(d)

**IATA and ICAO:** Unregulated: meets the requirements of special revision A67If non-spillable batteries meet the Special Provision 238, they are exempt from all IMDG codes provided that the batteries' terminals are protected against short circuits.

**IMO:** Unregulated.

Grainger Global Sourcing seal lead-acid batteries are classified as "non-spillable" for the purpose of transportation by DOT, and IATA/ICAO as result of passing the Vibration and Pressure Differential Test described in DOT[49 CFR 173.159(d) and IATA/ICAO [Special provision A67].

Grainger Global Sourcing seal lead-acid batteries can be safely transported on deck, or under deck stored on either a passenger or cargo vessel as result of passing the Vibration and Pressure

**Differential Tests as described in the regulations.**

To transport these batteries as "non-spillable" they must be shipped in a condition that would protect them from short-circuits and be securely packaged so as to withstand conditions normal to transportation by a consumer, in or out of a device, they are unregulated thus requiring no additional special handling or packaging.

**For all modes of transportation, each battery outer package is labeled NON-SPILLABLE per 4 CFR 13.15(d). If you repackage our batteries either as batteries or as a component of another product you must label the outer package NON-SPILLABLE per 4 CFR 13.15(d).**

**15. REGULATORY INFORMATION**

**United States:**

**EPA SARA Title III**

**Section 302 EPCRA Extremely Hazardous Substances (EHS):**

Sulfuric acid is a listed "Extremely Hazardous Substance" under EPCRA, with a Threshold Planning Quantity (TPQ) of 1,000 lbs.

EPCRA Section 302 notification is required if 500 lbs or more of sulfuric acid is present at one site (40 CFR 370.10). An average automotive/commercial battery contains approximately 5 lbs of sulfuric acid. Contact your Exide representative for additional information.

**Section 304 CERCLA Hazardous Substances:**

Reportable Quantity (RQ) for spilled 100% sulfuric acid under CERCLA (Superfund) and EPCRA (Emergency Planning and Community Right to Know Act) is 1,000 lbs. State and local reportable quantities for spilled sulfuric acid may vary.

**Section 311/312 Hazard Categorization:**

EPCRA Section 312 Tier Two reporting is required for non-automotive batteries if sulfuric acid is present in quantities of **500 lbs** or more and/or if lead is present in quantities of **10,000 lbs** or more.

**Section 313 EPCRA Toxic Substances:**

**Supplier Notification:** This product contains a toxic chemical or chemicals subject to the reporting requirements of section 313 of (Title) III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

<u>Chemical</u>	<u>CAS</u>	<u>Percent by Weight</u>
Lead (Pb)	7439-92-1	44-57
Electrolyte: Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	7664-93-9	23-27
Antimony (Sb)	7440-36-0	1.0
Lead Dioxide (PbO <sub>2</sub> )	1309-60-0	19-26

If you distribute this product to other manufacturers in SIC Codes 20 through 39, this information must be provided with the first shipment of each calendar year. **Note:** The Section 313 supplier notification requirement does not apply to batteries that are "consumer products".

**TSCA:** Each ingredient chemical listed in Section III of this SDS is also listed on the TSCA Registry.

**OSHA:** Considered hazardous under Hazard Communication Act (29CFR1910.1200)

**RCRA:** Spent lead-acid batteries are not regulated as hazardous waste when recycled. Spilled sulfuric acid is a characteristic hazardous waste; EPA hazardous waste number D002 (corrosivity).

**CAA:** Grainger Global Sourcing supports preventative actions concerning ozone depletion in the atmosphere due to emissions of CFCs 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.

**NFPA Hazard Rating for sulfuric acid:**

Flammability (Red)	=	0
Health (Blue)	=	3
Reactivity (Yellow)	=	2

US State Notifications & Warnings:	Identification	Notifications/Warning
California	California Proposition 65	"WARNING: This product contains lead, a chemical known to the State of California to cause cancer, or birth defects or other reproductive harm."
		Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Batteries also contain other chemicals known to the State of California to cause cancer. Wash hands after handling.
		The following chemicals identified to exist in the finished product as distributed into commerce are known to the State of California to cause cancer, birth defects or to cause reproductive harm: 1. Strong inorganic acid mists including sulfuric acid: CAS #: NA; 23-27% wt 2. Lead and lead compounds: CAS #: 7439-92-1; 63-83% wt.
	Consumer Product Volatile Organic Compound Emissions	This product is not regulated as a consumer product for purposes of CARB/OTC VOC Regulations, as sold for the intended purpose and into the industrial/commercial supply chain.

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 has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.  Refer to the Controlled Products Regulations for product labeling requirements.								
	NPRI and Ontario Regulation 127/01	This product contains the following chemicals subject to the reporting requirements of Canada NPRI and/or Ont. Reg. 127/01: <table> <tr> <th><u>Chemical</u></th> <th><u>CAS #</u></th> <th><u>%wt</u></th> </tr> <tr> <td>Lead</td> <td>7439-92-1</td> <td>63-83</td> </tr> <tr> <td>Sulfuric acid</td> <td>7664-93-9</td> <td>23-27</td> </tr> </table>	<u>Chemical</u>	<u>CAS #</u>	<u>%wt</u>	Lead	7439-92-1	63-83	Sulfuric acid	7664-93-9
<u>Chemical</u>	<u>CAS #</u>	<u>%wt</u>								
Lead	7439-92-1	63-83								
Sulfuric acid	7664-93-9	23-27								
Toxic Substances List	Lead									

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.
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#### 16. 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.

VENDEE AND THIRD PERSONS ASSUME THE RISK OF INJURY PROXIMATELY CAUSED BY THE MATERIAL IF REASONABLE SAFETY PROCEDURES ARE NOT FOLLOWED AS PROVIDED FOR IN THE DATA SHEET, AND VENDOR SHALL NOT BE LIABLE FOR INJURY TO VENDEE OR THIRD PERSONS PROXIMATELY CAUSED BY ABNORMAL USE OF THE MATERIAL EVEN IF REASONABLE PROCEDURES ARE FOLLOWED.

ALL PERSONS USING THIS PRODUCT, ALL PERSONS WORKING IN AN AREA WHERE THIS PRODUCT IS USED, AND ALL PERSONS HANDLING THIS PRODUCT SHOULD BE FAMILIAR WITH THE CONTENTS OF THIS DATA SHEET. THIS INFORMATION SHOULD BE EFFECTIVELY COMMUNICATED TO EMPLOYEES AND OTHERS WHO MIGHT COME IN CONTACT WITH THE PRODUCT.

WHILE THE INFORMATION ACCUMULATED AND SET FORTH HEREIN IS BELIEVED TO BE ACCURATE AS OF THE DATE HEREOF, GRAINGER GLOBAL SOURCING MAKES NO WARRANTY WITH RESPECT THERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE FOR THEIR PARTICULAR CIRCUMSTANCES.

ANY PHOTOCOPY MUST BE OF THIS ENTIRE DOCUMENT