LEGAL ADVERTISEMENT MUNICIPALITY OF BETHEL PARK ALLEGHENY COUNTY, PENNSYLVANIA

NOTICE OF BIDS

Separate and sealed Bids will be received by the Municipality of Bethel Park at the **Municipal Building**, 5100 West Library Avenue, Bethel Park, Pennsylvania 15102, until 2:00 P.M. on Monday, July 7, 2025, for the following:

Rare Earth Chloride 265-Gallon Totes

Immediately after Closing Time for receipt of bids, all bids will be opened and read aloud in the Municipal Council Chambers, but contract will not be awarded at that time. Contract award will be determined later after confirmation and review of bid documents.

Each bidder will be responsible for delivery of Bid to the Administration Offices of the Bethel Park Municipal Building located at 5100 West Library Avenue, Bethel Park, PA 15102. All bid packages must be received before 2:00 PM on Monday, July 7, 2025. The Municipality of Bethel Park will not open or consider Bids which are mis-marked, delivered to the wrong place or delayed in delivery or in the mail.

Copies of the Proposal Forms and Specifications, and additional information, may be obtained from the Municipality of Bethel Park's website at <u>www.bethelparkpa.gov</u>. Please visit the municipal website to obtain the forms that are necessary to complete the bid package. Bids will only be accepted on the forms provided from the municipality's website.

All sealed Bids must be addressed to **Ms. Kristen Denne, Municipal Manager**, 5100 West Library Avenue, Bethel Park Pa. 15102 and must indicate on the outside of the envelope the items for which the Bid is being submitted: "**Rare Earth Chloride**" **Wastewater Treatment Plant**

The Municipality reserves the right to reject any and/or all Bids, and to waive any informalities in the Bids, and to award the Contract to the proposal that serves the best interest of the Municipality.

Ms. Kristen Denne, Manager Municipality of Bethel Park

Ad Dates: Sunday, June 22, 2025 – (Post Gazette) Sunday, June 29, 2025 – (Post Gazette) *Also available on municipal website <u>www.bethelparkpa.gov</u> June 20, 2025-July 7, 2025

SPECIFICATIONS AND PROPOSAL FORM FOR Rare Earth Chloride (265 Gallon Totes)

The undersigned, having become familiar with the local conditions and the terms of these documents affecting the cost of furnishing Rare Earth Chloride to the Municipality of Bethel Park, hereby proposes to deliver the materials indicated for the Unit Price (price per pound) as inserted in the space provided on the following page. This proposal is submitted subject to the following conditions.

A. <u>Rare Earth Chloride</u>

- 1. The Bid shall be based on furnishing approximately 50/265-Gallon Totes of Rare Earth Chloride for the period extending 365 days from the date of execution.
- 2. Product Typical Values/Ph 3.0-4.0, with high water solubility, melting/freeze point -40degree Fahrenheit
- 3. Specific Gravity / 1.4-1.6 g/cm3 (solution) 20 degree Celsius (68 degree Fahrenheit)
- 4. <u>Please refer to the MSDS Sheet describing this chemical, included in this document as</u> <u>Attachment 1</u>

Deliveries shall be made at such times and in such quantities as requested by the Superintendent of the Wastewater Treatment Plant at 3100 Piney Fork Road, South Park, Pa. 15129

Deliveries shall be made within five (5) calendar days of the requisition by the Superintendent.

The supplier shall deliver 4 Totes (265 gallon) EMPTY and can pump over the Rare Earth Chloride, approximately 50 feet into the empty totes. This delivery requirement shall be furnished by the supplier and any shipping costs pertaining to the same shall be included in the price-per-pound Bid.

Payment for deliveries will be issued by the Municipality of Bethel Park to the successful bidder within thirty (30) days of receipt of the Invoice, based on the number of 265-gallon totes delivered, at the price bid per pound bid. An "open-ended" Purchase Order shall be supplied by the Municipality and controlled by the Superintendent of the Wastewater Treatment Plant.

SPECIFICATIONS AND PROPOSAL FORM FOR Rare Earth Chloride (265 Gallon Totes)

TERMS OF AGREEMENT:

<u>Term of Agreement.</u> This Agreement represents the entire Agreement between the Municipality and the Contractor and is entered into during the month of <u>July 2025</u>. This Agreement shall become effective <u>July , 2025</u>, and shall remain in effect up to and including midnight, <u>365 days from the execution of the agreement</u> with the Municipality, subject to the provisions hereinafter stated.

Bids shall be sealed and shall be submitted <u>only</u> on these forms.

Bids will be awarded to the lowest bidder with the total cost of 265 Gallons to be purchased in a 12-month period.

The Municipality has an estimated use of up to 265 gallons of the rare earth chloride. There will be no penalty incurred to the municipality is an amount less than 265 gallons is purchased.

The Municipality reserves the right to reject any/all Bids and, at its discretion, waive any bid irregularities.

In tendering this Bid, it is understood that, if awarded the Contract, the undersigned will execute and deliver to the owner two (2) copies of the attached forms within fourteen (14) days of formal notification of Award.

The vendor agrees if the material does not meet the specifications, the city has the right to reject the material, and a suitable replacement will be provided immediately.

SPECIFICATIONS AND PROPOSAL FORM FOR

Rare Earth Chloride (265 Pound Totes)

PROPOSAL FORM

DESCRIPTION	UNIT PRICE PER GALLON		ON
	7/7/25 – 7/31/26		
Furnish, deliver, and pump over Rare Earth Chloride in 265-gallon Totes to the Bethel Park Sewage Treatment Plant.	\$*		

Total Annual Bid_____

The Bidder shall provide the name, location, and telephone number (which will answer 24 hours a day, 7 days a week) for emergency service if needed.

FIRM NAME:	
BY:	(Please Print)
TITLE:	
DATE:	
OFFICIAL FIRM ADDRESS:	
PHONE/EMAIL:	/

INSTRUCTIONS FOR NON-COLLUSION AFFIDAVIT

- 1. This Non-Collusion Affidavit is material to any Contract awarded pursuant to this Bid. According to the Pennsylvania Antibid-Rigging Act, 73 P.S. 1611 <u>et seq.</u>, governmental agencies may require Non-Collusion Affidavits to be submitted together with Bids.
- 2. This Non-Collusion Affidavit must be executed by the member, officer or employee of the bidder who makes the final decision on prices and the amount quoted in the Bid.
- 3. Bid-Rigging and other efforts to restrain competition, and the making of false sworn statements in connection with the Bid are grounds for prosecution. The person who signs the Affidavit should examine it carefully before signing and assure himself or herself that each statement is true and accurate, making diligent inquiry, as necessary, of all other persons employed by or associated with the bidder with responsibilities for the preparation, approval, or submission of the Bid.
- 4. In the case of a Bid submitted by a joint venture, each party to the venture must be identified in the Bid documents, and an Affidavit must be submitted separately on behalf of each party.
- 5. The term "Complementary Bid" as used in the Affidavit has the meaning commonly associated with that term in the bidding process and includes the knowing submission of bids higher than the bid of another firm, any intentionally high or non-competitive bid, and any other form of bid submitted for the purpose of giving a false appearance of competition.
- 6. Failure to file an Affidavit in compliance with these instructions will result in disqualification of the Bid.

MUNICIPALITY OF BETHEL PARK

PROPOSAL

NON-COLLUSION AFFIDAVIT

State of	:			
	: s.s.			
County of	<u>:</u>			
I state that I am		of		
	(Title)	(Name	of Firm)	
and that I am au	thorized to make th	nis Affidavit on behal	f of my firm, and	its owners, directors,

and officers. I am the person responsible in my firm for the price(s) and the amount of this Bid.

I STATE THAT:

- 1) Price(s) and amount of this Bid have been arrived at independently and without consultation, communication or agreement with any other contractor, bidder or potential bidder.
- 2) Neither the price(s) nor the amount of this Bid, and neither the approximate price(s) nor approximate amount of this Bid, have been disclosed to any other firm or person who is a bidder or potential bidder, and they will not be disclosed before the bid opening.
- 3) No attempt has been made, or will be made, to induce any firm or person to refrain from bidding on this contract, or to submit a bid higher than this bid, or to submit any intentionally high or non-competitive bid or other form of complementary bid.
- 4) The bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or any inducement from any firm or person to submit a complementary or other non-competitive bid.
- 5)

_____, its affiliates,

Contract/Bid No.

(Name of my Firm) subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last four years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract, except as follows:

MUNICIPALITY OF BETHEL PARK

PROPOSAL

NON-COLLUSION AFFIDAVIT

I state that _______ understands and acknowledges that (Name of My Firm) the above representations are material and important and will be relied upon by ________, awarding the contract(s) for which this bid is submitted. (Name of Public Entity) I understand, and my firm understands, that any misstatement in this Affidavit is, and shall be treated as, fraudulent concealment from _______ of the true (Name of Public Entity) facts relating to the submission of bids for this Contract.

(Name and Company Position)

SWORN TO AND SUBSCRIBED

BEFORE ME THIS_____ DAY

*OF*_____, 2025

Notary Public My Commission Expires: _____.

Exhibit 1



Safety Data Sheet 5346 – Rare Earth Chloride Solution

According to the 2012 US Hazard Communication Standard (29 CFR 1910.1200) SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Identifier: Product Name: 5346 Chemical Family: Rare Earth Chloride

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against: Relevant Identified Uses: Coagulant and phosphorus reduction media for water treatment Uses Advised Against: Not Applicable

Details of the Supplier of the Safety Data Sheet:

Company Name: MP Materials Address: 67750 Bailey Road, HC1 Box 224, Mountain Pass, CA 92366 Telephone: 702-876-9607 Fax: 702-844-6127 Website: www.mpmaterials.com

Emergency Information:

Chemical Emergency (for spill, leak, fire, exposure, or accident): CHEMTREC: +1 (800) 424-9300 (within the US) or +1 (703) 527-3887 (outside the US) Health Emergency: American Association of Poison Control Center (800) 222-1222 (within the US)

SECTION 2 HAZARDS IDENTIFICATION

Classification of the Substance or Mixture:

Classification according to the Global Harmonized System (GHS):

Health	Environmental	Physical
Skin Irritation (Category 2)	None	None
Eye Irritation (Category 2B)	none	None

Label Elements: Hazard Pictogram(s):



Signal Word: Warning



Hazard Statements	Precautionary Statements
H315: Causes skin irritation	P264: Wash hands/skin thoroughly after handling
H320: Causes eye irritation	P280: Wear protective gloves/protective clothing/eye protection/face protection
	P302+P352: IF ON SKIN: Wash with plenty water
	P303+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P321: Specific treatment (see First Aid) on this label
	P337+P313: If eye irritation persists: Get medical advice/attention
	P362+P364: Take off contaminated clothing and wash it before reuse

Other Hazards: None

SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

Mixture:

CAS Number	EC Number	Chemical Name	Percent (% Weight)
7732-18-5	231-791-2	Water	55-73
7790-86-5	232-227-8	Cerium Chloride	13-44
10099-58-8	233-237-5	Lanthanum Chloride	1-22

SECTION 4 FIRST AID MEASURES

Description of First Aid Measures:

- **Eye:** Immediately move victim away from source of exposure and into fresh air. If irritation or redness develops, flush eyes with clean water and seek immediate medical attention. For direct contact, immediately hold eyelids apart and flush the affected eye(s) with clean water for at least 20 minutes. Seek immediate medical attention.
- Skin: In case of contact, wash skin and/or hair thoroughly with soap and water. Take off contaminated clothing and wash it before reuse. Get medical advice/attention if you feel unwell.
- Inhalation: No specific first aid measures are required. If exposed to levels above recommended exposure limits, remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.
- **Ingestion:** No specific first aid measures are required. As a precaution, rinse mouth. Do NOT induce vomiting. If exposed or concerned: get medical advice/attention.

Most Important Symptoms and Effects, both Acute and Delayed: See Section 11.



Indication of Any Immediate Medical Attention and Special Treatment Needed: See Section 1

SECTION 5 FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Use extinguishing media suitable for surrounding area if this material is involved in a fire (e.g., fog, foam, dry chemical, or carbon dioxide). See also **Section 10**.

Specific Hazards Arising from the Substance or Mixture:

See Section 10.

Special Protective Actions for Firefighters:

None known. This material is non-combustible.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures:

Observe personal protective equipment (PPE) advice in Section 8.

Environmental Precautions:

Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water (surface water or groundwater). See also **Section 12**.

Methods and Material for Containment and Cleaning Up:

Stop the source of the release if you can do it without risk. Eliminate all ignition sources. Spilled material should be swept up as soon as possible, observing precautions in **Section 8**. Where feasible and appropriate, remove contaminated soil. Secure load if safe to do so. For disposal, see **Section 13**.

SECTION 7 HANDLING AND STORAGE		
Precautions for Safe Handling:	Wash hands/skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.	

Conditions for Safe Storage: Store in original container in a cool, dry, well-ventilated area.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters:

Exposure limit values: Not available

Appropriate Engineering Controls:

Work/Hygienic practices: Consider the potential hazards of this material, applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting PPE. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the PPE listed below is recommended.

Ventilation: Ensure adequate ventilation. Additional ventilation or exhaust systems may be required.



Other equipment: The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

Individual Protection Measures / Personal Protective Equipment (PPE):

Eye/Face Protection:	Wear safety glasses with side shields, chemical goggles, or complete facial protection to safeguard against potential eye contact, irritation, or injury.
Hands/Skin Protection:	The use of gloves that are impermeable to the specific material handled or other impervious clothing is advised to prevent skin contact, possible irritation, and skin damage. Selection of protective clothing may include work gloves, apron, boots, and complete facial protection depending on operations conducted.
Respiratory Protection:	If exposure to nuisance levels of airborne material occurs when working with this material, wear a NIOSH/MSHA approved respirator that provides protection, such as: High Efficiency Particulate Air (HEPA) respirator and filter cartridge. Use a positive pressure air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection. Respiratory protection program (e.g., OSHA's 29 CFR 1910.134 and ANSI Z88.2) requirements must be followed whenever workplace conditions warrant a respirator's use.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties:

Note: The data below are typical values and do not constitute a specification.

Appearance: Physical state: Color: Odor/Odor threshold:	Liquid White to Amber Not available	Partition Coefficient n-octanol/water: Auto-ignition temperature:	Not available Not available
pH (as supplied):	3.0-4.0	Decomposition temperature:	Not available
Melting/freezing point:	-40°F	Viscosity:	Not available
Boiling point/range:	Not available	Molecular weight:	Not available
Flash point:	Not available	Taste:	Not available
Evaporation rate:	Not available	Explosive properties:	Not available
Flammability:	Non-flammable	Oxidizing properties:	Not available
Upper/lower explosive limits:	Not available	Surface tension:	Not available
Vapor pressure:	Not available	Volatile component:	Not available
Water solubility:	High	Gas group:	Not available
Vapor density (Air = 1):	Not available	pH (as solution):	Not available
Specific gravity (Water = 1):	1.4-1.6 g/cm ³ (solution) @ 20°C (68°F)	VOC:	Not available
Relative density:	Not available	Particle size range:	Not available

Other Information: None



SECTION 10 STABILITY AND REACTIVITY

Reactivity:	This material is considered non-reactive under normal storage and handling conditions.
Chemical Stability:	This material is considered stable under normal storage and handling conditions.
Possibility of Hazardous Reactions:	Hazardous polymerization will not occur.
Conditions to Avoid:	None known
Incompatible Materials:	Incompatible with oxidizing reagents, can generate chlorine gas.
Hazardous Decomposition Products:	See above

SECTION 11 TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Eye and skin contact.

Potential Signs and Symptoms of Overexposure: Eye and/or skin irritation

Information on Toxicological Effects:

Acute Oral Toxicity:	Based on the available data, the material does not require classification for acute oral toxicity
Acute Dermal Toxicity:	Based on available data, the material does not require classification for acute dermal toxicity
Acute Inhalation Toxicity:	Based on available data, the material does not require classification for acute inhalation toxicity
Skin Corrosion/Irritation:	Causes skin irritation (Category 2)
Serious Eye Damage/Irritation:	Causes eye irritation (Category 2B)
Skin Sensitization:	Based on available data, the material does not require classification for skin sensitization
Respiratory Sensitization:	Based on available data, the material does not require classification for respiratory sensitization
Germ Cell Mutagenicity:	Based on negative in vitro mutagenicity studies, the material does not require classification for mutagenicity
Carcinogenicity:	The material is not classified by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), and the American Conference of Government Industrial Hygienists (ACGIH)
Developmental/Reproductive Toxicity:	Based on available data, the material does not require classification for developmental/reproductive effects
Specific Target Organ Toxicity (STOT) Single Exposure:	Based on available data, the material does not require classification for STOT – single exposure.



Specific Target Organ Toxicity (STOT) Repeated Exposure:

Based on available data, the material does not require classification for STOT – repeated exposure

Aspiration Hazard:

Based on available data, the material does not require classification for aspiration hazard

<u>References</u>

ECHA. 2020. REACH Registered Substances Database. Lambert, CE and M-L Ledrich. 2014. Lanthanide Series of Metals. Encyclopedia of Toxicology. 43-47.

SECTION 12 ECOLOGICAL INFORMATION

Toxicity: This material is not expected to be harmful to fish, aquatic invertebrates, or algae. Soluble forms of rare earth salts are known to inhibit algal growth by chelating free phosphate.

Component	Species	Toxicity
	Fathead Minnow	96-hour LC50>1,000 mg/L
Rare Earth Chloride	Ceriodaphnia dubia	48-hour LC50>1,000 mg/L
	Green Algae	IC25=211 mg/L

All aquatic tests were carried out using a static system.

Persistence and Biodegradability:	This inert mineral material is not expected to be readily biodegradable. Due to the inorganic nature of the material, biodegradation is not applicable; study is scientifically unjustified.	
Bioaccumulative Potential:	No data available	
Mobility in Soil:	No data available	
Results of PBT and vPvB Assessment:	No data available	
Other Adverse Effects:	None known (None expected)	

References:

Lambert, CE and M-L Ledrich. 2014. Lanthanide Series of Metals. Encyclopedia of Toxicology. 43-47. McDaniel Lambert. 2007. Report to Molycorp on the genotoxicity and aquatic toxicity testing of lanthanum concentrate, leached bastnaesite concentrate, and cerium oxide

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Treatment Methods:

Disposal Methods: Do not allow wash water from cleaning or process equipment to enter drains. Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by federal and local laws and should be fully characterized for toxicity prior to disposal (40 CFR



261). Measurement of certain physical properties and analysis for regulated



components may be necessary to make a correct determination. Chemical additions, processing or otherwise altering this material may make waste management information presented in the safety data sheet (SDS) incomplete.

Container: Place contaminated materials in disposal containers and dispose of contents/container in accordance with local/regional/national/international regulations. Contact local authority if in doubt.

SECTION 14 TRANSPORT INFORMATION

This mixture is not classified as dangerous goods for transport purposes.

Agency:	Shipping Description:
DOT	Not regulated as dangerous goods for transport
IMO/IMDG	Not regulated as dangerous goods for transport
ICAO/IATA	Not regulated as dangerous goods for transport

UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user:	Not applicable
Transport in bulk according to Annex	
II of MARPOL 73/78 and the IBC Code:	Not applicable

SECTION 15 REGULATORY INFORMATION

Safety, Health and Environmental Regulations:

United States Federal Regulations:

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): No components in this material are listed. Clean Water Act (CWA): No components in this material are listed. Clean Air Act (CAA): No components in this material are listed.

Superfund Amendments and Reauthorization Act (SARA) Title III Information:

SARA 302 Components: No components in this material are subject to reporting requirements of S.302.

SARA 311/312 Hazards: Acute Health Hazard

SARA 313 Components: No components in this material are listed.

Toxic Substances Control Act (TSCA): All components in this material are listed on the TSCA inventory.



State and Other:

California: No components in this material are listed under Proposition 65 (CA Health & Safety Code Section 25249.5).
Massachusetts: No components in this material are listed under the Right to Know Act (RTK).
New Jersey: No components in this material are listed under the RTK.
Pennsylvania: No components in this material are listed under the RTK.
IARC: No components in this material are classified.
NTP: No components in this material classified.

REGULATORY LISTS SEARCHED:

01-1 =IARC Group 1 01-2 A=IARC Group 2A 01-2B=IARC Group 2B 02=NTP Carcinogen . 03=EPCRA 313 04=CA Proposition 65 05=MA RTK 06=NJ RTK

07=PA RTK

Chemical Safety Assessment: No information available

SECTION 16 OTHER INFORMATION

This SDS was prepared according to the 2012 US Hazard Communication Standard (29 CFR 1910.1200)

Revision Indicator: This is a revised Safety Data Sheet.

Revision Date: September 9, 2022

Company Disclaimer:

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

National Fire Protection Association (NFPA) Ratings: This information is provided solely for the use of individuals trained in the NFPA system.

Health: 1 Flammability: 0 Reactivity: 0



Abbreviations and Acronyms:

ACGIH: American Conference of Government Industrial Hygienists	LC50: Lethal Concentration 50%
ANSI: American National Standards Institute	LD50: Lethal Dose 50%
API: American Petroleum Institute	MA: Massachusetts
CA: California	MARPOL: International Convention for the Prevention of Pollution from Ships
CAA: Clean Air Act	MSHA: Mine Safety and Health Administration
CAS: Chemical Abstract Service Number	NFPA: National Fire Protection Association



CERCLA: Comprehensive Environmental Response and Liability Act	NIOSH: National Institute for Occupational Safety and Health
CFR: Code of Federal Regulation	NJ: New Jersey
CWA: Clean Water Act	NOS: Not Otherwise Specified
DOT: U.S. Department of Transportation	NTP: National Toxicology Program
EC: European Community	OSHA: Occupational Safety and Health Administration
ECHA: European Chemicals Agency	PA: Pennsylvania
EHS: Extremely Hazardous Substance	PEL: Permissible Exposure Limit
EPCRA: Emergency Planning and Community Right To Know Act	PPE: Personal Protective Equipment
GHS: Globally Harmonized System	REL: Recommended Exposure Limit
HEPA: High Efficiency Particulate Air	RTK: Right to Know
IARC: International Agency for Research on Cancer	RTK: Right to Know
IATA: International Air Transport Association	SARA: Superfund Amendment and Reauthorization Act
IBC: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk	SDS: Safety Data Sheet
ICAO: International Civil Aviation Organization (UN)	STEL: Short-term Exposure Limit
IDLH: Immediately Dangerous to Life or Health	TLV: Threshold Limit Value
IMDG: International Maritime Dangerous Goods	TSCA: Toxic Substances Control Act
IMO: International Maritime Organization	TWA: Time Weighted Average
KOC: Organic Carbon Partition Coefficient	UN: United Nations
KOW: n-Octanol/Water Partition Coefficient	VOC: Volatile Organic Compound