



GHS SAFETY DATA SHEET

CORN OIL

SDS DATE: 03/10/2021

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME (GHS Product Identifier): Corn Oil
(Other means of Identification): Corn Oil, N.F, Technical Corn Oil

PRODUCT INTENDED USE AND RESTRICTION: Feed or Biofuel Feedstock

NAME, ADDRESS & TELEPHONE NUMBER OF THE RESPONSIBLE PARTY:

Company
Green Plains Trade Group LLC
1811 Aksarben Drive, Omaha, NE 68106
Phone: 402-884-8700
Email: EHSS@gpreinc.com

CHEMTREC PHONE (24HR Emergency Telephone): 1-800-424-9300 (Within U.S.A)
INTERNATIONAL CHEMTREC CALL: 1-703-527-3887
OTHER CALLS: 1-402-884-8700 (M-F, 8 AM-5 PM, Central time (U.S.A & Canada); within U.S.A)

FAX PHONE: 1-402-884-8776 (M-F, 8 AM-5 PM, Central time (U.S.A & Canada); within U.S.A)

SECTION 1 NOTE: None Available

SECTION 2: HAZARDS IDENTIFICATION

GHS LABELING AND CLASSIFICATION: This product meets the definition of the following hazard classes as defined by the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

GHS CLASSIFICATION ACCORDING TO ANNEX II:

HEALTH	ENVIRONMENTAL	PHYSICAL
Not classified	Not classified	Not classified
SIGNAL WORD:		NONE
SYMBOL:		Not Applicable
HAZARD STATEMENT:		Not Applicable
PRECAUTIONARY STATEMENTS:	PREVENTIVE:	Not Applicable
	RESPONSE:	Not Applicable
	STORAGE:	Not Applicable
	DISPOSAL:	Not Applicable

Any Regional Considerations: N/A

SECTION 2 NOTES: None Available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME: Corn oil
COMMON NAME: Mazola oil
CHEMICAL FAMILY: N/A
CHEMICAL FORMULA: N/A
SYNONYMS: Mazola oil

INGREDIENT: Corn oil

NAME	CAS#	EC#	ICSC#	% WT	% VOL
Corn Oil	8001-30-7	N/A	N/A	100%	100%

CARCINOGENICITY

OSHA: NOT LISTED **ACGIH:** NOT LISTED **NTP:** NOT LISTED **IARC:** NOT LISTED
OTHER: CAS # 8001-30-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65

IMPURITIES/STABILIZING ADDITIVES IDENTIFICATION: N/A

IMPURITIES/STABILIZING ADDITIVES CLASSIFICATION (if applicable): N/A

SECTION 3 NOTES: None Available

SECTION 4: FIRST AID MEASURES

Contaminated individuals of chemical exposure must be taken for medical attention if any adverse effect occurs. Rescuers should be taken for medical attention, if necessary. Take copy of label and MSDS to health professional with contaminated individual.

EMERGENCY OVERVIEW: **PRODUCT DESCRIPTION:** This product is a light, yellowish liquid, with an odor characteristic of corn. **HEALTH HAZARDS:** Under normal circumstance of handling and use, this product presents minimal hazards by all routes of exposure. Can cause skin irritation if contact is prolonged; ingestion of large quantities may cause digestive upset; inhalation of mists or sprays may be irritating; aspiration into the lungs may cause oil-induced pneumonia or hazardous respiratory edema. Corn oil has been reported to cause sensitization and allergic skin reaction in susceptible individuals. **FLAMMABILITY HAZARDS:** This product is combustible; it must be highly heated in order to ignite. If involved in a fire it will release irritating carbon oxides and may produce heavy smoke. Dangerous spontaneous heating may occur during storage if leaks impregnate rags, waste, etc. **REACTIVITY HAZARDS:** This product is not reactive. **ENVIRONMENTAL HAZARDS:** Negligible. **EMERGENCY RESPONSE PROCEDURES:** Emergency responders must wear adequate personal protective equipment and provide suitable fire protection during response situations.

ROUTES OF ENTRY/FIRST AID:

EYES CONTACT: Check for and remove any contact lenses. In case of contact, immediately flush eyes with water for at least 15 minutes. Get medical attention if irritation occurs.

SKIN CONTACT: Wash skin with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

INHALATION: Move to fresh air. If not breathing. Give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

INGESTION: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt, or waistband.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Repeated or prolonged exposure is not known to aggravate medical condition

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Treat symptomatically

SECTION 4 NOTES: None Available

SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: For small fire, use DRY chemical; for large fire, use water spray, fog, or foam. Do not use water jet

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS: Structural firefighters must wear self-contained breathing apparatus and full protective equipment. Move containers from fire area if it can be done without risk to personnel. Water spray can be used to cool fire-exposed containers. Water fog or spray can also be used by trained firefighters to disperse this product's vapors and to protect personnel. If possible prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas. Rinse contaminated equipment thoroughly with soapy water before returning such equipment to service.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

(Define specific hazards arising from the chemical e.g., nature of any hazardous combustion products)

This product is a combustible liquid. When involved in a fire, this material may ignite and produce irritating vapors and toxic gases (e.g., carbon oxides). Dangerous spontaneous heating may occur during storage if leaks impregnate rags, waste, etc.

HAZARDOUS DECOMPOSITION PRODUCTS: Not Available

FLAMMABLE LIMITS IN AIR (% by volume):

UPPER LIMIT: N/A

LOWER LIMIT: N/A

FLASH POINT:

F: ≥482°F



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C: ≥250°C

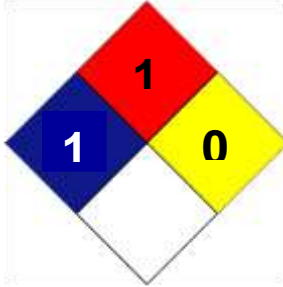
METHOD USED: Closed Cup

AUTOIGNITION TEMPERATURE:

F: ≥734°F

C: ≥ 390 °C

NFPA HAZARD CLASSIFICATION:



HEALTH=1
FLAMMABILITY=1
REACTIVITY=0
OTHER=N/A

HMIS HAZARD CLASSIFICATION (0-4 scale):

Corn Oil	
HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	D
Face shield & eye protection, gloves, synthetic apron	

SECTION 5 NOTES: None Available

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Eliminate any possible source of ignition and provide maximum explosion-proof ventilation. Proper protective equipment, including fire protection, should be used in the event of a large release. Use only non-sparking tools. The atmosphere must have at least 19.5 percent oxygen before non-emergency personnel can be allowed in the area without self-contained breathing apparatus and fire protection. Spills may be very slippery and can present a serious slip-hazard.

ENVIRONMENTAL PRECAUTIONS: Prevent material from entering sewer or confined spaces, waterways, soil or public waters; do not flush to sewer; dispose of residues in compliance with applicable national, state and local regulations.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Small Spills: Absorb with an inert material and put the spilled material in an appropriate waste disposal. Large Spills: Absorb with an inert material and put the spilled material in an appropriate waste disposal unit. Finish cleaning by spreading water on the contaminated surface and allow evacuating through the sanitary system. All spills: Decontaminate the area of the spill thoroughly using detergent and water. Place all spill residues in an appropriate container and seal. Do not mix with wastes from other materials. If necessary, discard contaminated response equipment or rinse with soapy water before returning such equipment to service. Dispose of in accordance with applicable international, national, state, and local procedures.

SECTION 6 NOTES: None Available

SECTION 7: HANDLING AND STORAGE

PRECAUTION FOR SAFE HANDLING: All employees who handle this material should be trained to handle it safely. Avoid unnecessary contact. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing vapors or mists generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately.

CONDITIONS FOR SAFE STORAGE (any incompatibilities): Keep away from high heat and sources of ignition at that level. Empty containers pose a fire risk; evaporate the residue away from high heat and ignition sources (outside). Do not breathe gas/vapor/spray. Keep away from incompatibles such as oxidizing agents.

SECTION 7 NOTES: None Available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS/GUIDELINES:

INGREDIENTS	ACGIH	NIOSH	OSHA-FINAL PELs
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Corn oil	10 mg/m ³ as oil, ACGIH TLV-TWA	10 ppm (total dust), 5 ppm (respirable fraction), NIOSH-RELS-TWA	15 mg/m ³ as oil, OSHA PEL-TWA
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ENGINEERING CONTROLS:

VENTILATION: Provide exhaust ventilation to control the concentration of airborne vapors below their set TLV. Ensure that eyewash stations and safety showers are proximal to the work-station location.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

EYE PROTECTION: Use approved safety goggles or safety glasses. If necessary, refer to U.S. OSHA 29 CFR 1910.133, the Canadian CSA Standard Z94.3-M1982, Industrial Eye and Face Protectors, or the European Standard CR 13464:1999 for further information

SKIN PROTECTION: When chemical contact is possible, use splash apron or work uniform to prevent unnecessary contact. If necessary, refer to the OSHA Technical Manual (Section VII: Personal Protective Equipment) or appropriate Standards of Canada, or the European Standard CEN/TR 15419:2006, for further information. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136 and the Canadian CSA Standard Z195-M1984, *Protective Footwear*.

RESPIRATORY PROTECTION: Maintain the oxygen level above 19.5% in the workplace. If respiratory protection is needed, use only protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134) and equivalent U.S. State standards, Canadian CSA Standard Z94.4-93 and the European Standard EN 529:2005 and Respiratory Protection Standards of EU member states. In such atmospheres, use of a full-face piece pressure/demand SCBA or a full face piece, supplied air respirator with auxiliary self-contained air supply is required under U.S. Federal OSHA's Respiratory Protection Standard (1910.134-1998)

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Rubber boots

SECTION 8 NOTES: None Available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Liquid

PHYSICAL STATE: Liquid

COLOR: Clear to light reddish-orange

ODOR: Characteristic (slight)

pH AS SUPPLIED: N/A

pH (Other):

FREEZING POINT: No data available

F:
C:

BOILING POINT: Not Available

F:
C:

MELTING POINT:

F: 6.8°F
C: -14°C

FLASH POINT:

F: 482°F
C: 250°C

EVAPORATION RATE (BASIS=1): Not Available

FLAMMABILITY (by %volume):

UPPER FLAMMABILITY LIMIT: N/A
LOWER FLAMMABILITY LIMIT: N/A

VAPOR PRESSURE (mmHg): Not Available



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F:
C:

VAPOR DENSITY (AIR = 1): 1.037

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F: Ambient air temperature
C: Ambient air temperature

SOLUBILITY IN WATER: <1 mg/ml at 64°F

PARTITION COEFFICIENT n-octanol/water: Not Available

AUTO-IGNITION TEMPERATURE:

F: 740°F
C: 393.3°C

DECOMPOSITION TEMPERATURE: N/A

F:
C:

SPECIFIC GRAVITY (H2O = 1): 0.916-0.921 (NTP, 1992)

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F: 77°F
C: 25°C

PERCENT SOLIDS BY WEIGHT: N/A

PERCENT VOLATILE: N/A

BY WT/BY VOL @

F:
C:

VOLATILE ORGANIC COMPOUNDS (VOC): Not Available

WITH WATER: LBS/GAL
WITHOUT WATER: LBS/GAL

MOLECULAR WEIGHT: Not Available

VISCOSITY: Not Available

@

F:
C:

SECTION 9 NOTES: None Available

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: Stable under conditions of normal temperature and pressure. Not reactive

STABILITY: This product is stable

CONDITIONS TO AVOID (STABILITY): Excess heat, incompatible materials

POSSIBILITY OF HAZARDOUS REACTIONS: Polymerization will not occur

INCOMPATIBILITY MATERIAL: Reactive with oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS: Not Available

SECTION 10 NOTES: None Available

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: The toxicity data of this product has not been determined by testing or research, but to our best knowledge, this product is non-toxic.



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ROUTES OF EXPOSURE: Inhalation; dermal contact; eye contact

SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS:

CONTACT WITH EYES: Eye contact can cause irritation, with pain, tearing redness.

CONTACT WITH SKIN: Prolonged or repeated skin contact with corn oil can cause sensitization and allergic reaction in susceptible individuals.

INHALATION: Inhalation of airborne mists or sprays of this product may cause irritation of the respiratory system. Symptoms may include difficulty breathing and coughing. Adverse effects are expected to cease after removal to fresh air.

INGESTION: If large quantity is ingested, digestive upset with vomiting and diarrhea may occur. Aspiration into the lungs following vomiting can lead to dangerous oil-induced pneumonia or pulmonary edema.

DELAYED AND IMMEDIATE EFFECTS AND ALSO CHRONIC EFFECTS FROM SHORT- AND LONG-TERM EXPOSURE:

ACUTE HEALTH HAZARDS: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, or inhalation

CHRONIC HEALTH HAZARDS: Slightly hazardous in case of skin contact, of eye contact, of ingestion, of inhalation. Repeated or prolonged exposure is not known to aggravate medical condition. The effect of the following items is not available or established at this time: carcinogenic effects, mutagenic effects, teratogenic effects, and developmental toxicity

NUMERICAL MEASURES OF TOXICITY:

LD50/LC50:

LD50 (Intraperitoneal-Mouse) > 50 gm/kg

IRRITATION DATA:

Standard Draize Test (Skin-Human) 300 mg/3 days-intermittent: Mild

Oral [Rat] > 100 ml/kg

CARCINOGENICITY:

TDLo (Oral-Rat) 240 gm/kg/60 days-continuous: Skin and Appendages: breast Tumorigenic: facilitates action of known carcinogen

TDLo (Oral-Rat) 1200 gm/kg/60 days-continuous: Skin and Appendages: breast; Tumorigenic: facilitates action of known carcinogen; Biochemical: Metabolism (intermediary): lipids including transport

TDLo (Oral-Rat) 1344 gm/kg/32 weeks-continuous: Tumorigenic: protects against induction of experimental tumors

TDLo (Oral-Rat) 2600 ml/kg/2 years-intermittent: Tumorigenic: neoplastic by RTECS criteria; Gastrointestinal: tumors

TDLo (Oral-Rat) 2,575,000 mg/kg/103 weeks-intermittent: Blood: leukemia; Endocrine: adrenal cortex tumors; Tumorigenic: active as anti-cancer agent

TDLo (Oral-Rat) 1,287,500 mg/kg/103 weeks-intermittent: Tumorigenic: neoplastic by RTECS criteria; Gastrointestinal: tumors

EPIDEMILOGY: No data available

TERATOGENICITY: No data available

REPRODUCTIVE EFFECTS:

TDLo (Oral-Rat) 12,500 mg/kg: female 15-19 days(s) after conception: Reproductive: Specific Developmental Abnormalities: blood and lymphatic systems (including spleen and marrow), immune and reticuloendothelial system

TDLo(Oral-Rat) 360 mg/kg: female 10-22 day(s) after conception lactating female 23 days(s) post-birth: Reproductive: Effects on Newborn: biochemical and metabolic

TDLo (Oral-Rat) 50 ml/kg: female 6-15 day(s) after conception: Reproductive: Effects on Embryo or Fetus: fetotoxicity (except death, e.g., stunted fetus), other effects to embryo

TDLo (Oral-Rat) 390 ml/kg: female 2 weeks pre-mating: 3 days post-birth: Reproductive: Maternal Effects: other effects; Effects on Newborn: viability index (e.g., # alive at day 4 per # born alive)

TDLo (Oral-Mouse) 30 gm/kg: female 15-17 days after conception: Reproductive: Specific Developmental Abnormalities: immune and reticuloendothelial system

TDLo (Oral-Mouse) 100 ml/kg: female 6-15 day(s) after conception: Reproductive: Effects on Embryo or Fetus: fetotoxicity (except death, e.g., stunted fetus), other effects to embryo

TDLo (Intramuscular-Rat) 1 ml/kg: female 1 day(s) pre-mating: Reproductive: Fertility: post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants), litter size (e.g. # fetuses per litter; measured before birth)

TDLo (Intramuscular-Rat) 1 ml/kg: Reproductive: Maternal Effects: oogenesis, uterus, cervix, vagina

NEUROTOXICITY: No data available

MUTAGENICITY: No data available

OTHER:

TDLo (Oral-Rat) 315 mg/kg/15 weeks-continuous: Blood: other changes; Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: true cholinesterase

TDLo (Oral-Mouse) 91.8 mg/kg/10 days-intermittent: Liver: changes in liver weight

TDLo (Oral-Rat) 18.36 mg/kg/4 days-intermittent: Behavioral: food intake (animal)



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TDL_o (Oral-Mouse) 64.26 mg/kg/7 days-intermittent: Behavioral: food intake (animal)

SECTION 11 NOTES: None Available

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY (AQUATIC AND TERRESTRIAL, WHERE AVAILABLE): Not Available

PERSISTENCE AND DEGRADABILITY: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

BIOACCUMULATIVE POTENTIAL: This product does not present a hazard of bioaccumulation

MOBILITY IN SOIL: This product has not been tested for mobility in soils; it is expected to be highly mobile.

OTHER ADVERSE EFFECTS: This product has no ozone depletion potential

SECTION 12 NOTES: Environmental exposure controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

SECTION 13: DISPOSAL CONSIDERATIONS

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

RCRA HAZARD CLASS: N/A

DESCRIPTION OF WASTE RESIDUES AND INFORMATION ON THEIR SAFE HANDLING AND METHODS OF DISPOSAL, INCLUDING ANY CONTAMINATED PACKAGING: If product is involved in fire, it will produce irritating carbon oxides. Empty container is combustible.

SECTION 13 NOTES: None Available

SECTION 14: TRANSPORT INFORMATION

U.N. GHS TRANSPORT REQUIREMENT

UN NUMBER: N/A

PROPER SHIPPING NAME: Corn Oil

TRANSPORT HAZARD CLASS: N/A

PACKING GROUP: N/A

LABEL STATEMENT: N/A

MARINE POLLUTANT: Product is not classified as dangerous goods, per the International Maritime Organization (IMO).

SPECIAL PRECAUTIONS FOR USER: Avoid unnecessary contact

SECTION 14 NOTES: None Available

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TOXIC SUBSTANCE CONTROL ACT (TSCA): Product is on 2012 TSCA Inventory Chemical Data Reporting (CDR) Partial Exempt list.

OCCUPATIONAL, SAFETY AND HEALTH ADMINISTRATION (OSHA): The product is not considered highly hazardous by OSHA

COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT (CERCLA): Contains no reportable quantity (RQ) substances per Section 302/304 of EPA

CLEAN WATER ACT (CWA): The product is not listed as Hazardous Substances under the CWA.

CLEAN AIR ACT (CAA): The product does not contain any hazardous air pollutants.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE III INFORMATION:

SARA SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES: No



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SARA SECTION 311/312 (40 CFR 370) HAZARD CATEGORIES: No

SARA 313 REPORTABLE INGREDIENTS: None

STATE REGULATIONS:

Rhode Island RTK hazardous substances: Corn oil
Pennsylvania RTK: Corn oil

INTERNATIONAL REGULATIONS: This product is on the European Inventory of Existing Commercial Chemical Substances

SECTION 15 NOTES: None Available

SECTION 16: OTHER INFORMATION

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

REFERENCES:

GHS Annex II
GHS SDS Instruction

ACRONYMS/ABBREVIATIONS:

ACGIH-American Conference of Governmental Industrial Hygienists
CAA-Clean Air Act
CAS-Chemical Abstracts Service
CERCLA-Comprehensive Response Compensation and Liability Act
CHEMTREC-It serves as a round-the-clock resource for obtaining immediate response information for incidents involving hazardous material and dangerous goods.
CWA-Clean Water Act
EC-European Commission
GHS-Globally Harmonized System of Classification and Labeling of Chemicals
IARC-International Agency for the Research on Cancer
ICSC-International Chemical Safety Cards
LC50-The concentration of a chemical in air or of a chemical in water which causes the death of 50% of a group of test animals.
LD50-The amount of a chemical, given all at once, which causes the death of 50% of a group of test animals.
NIOSH-The National Institute for Occupational Safety and Health
NTP-National Toxicology Program
OSHA-Occupational Safety and Health Administration
RCRA-Resource Conservation and Recovery Act
RQ-Reportable Quantity
RTK-Right to Know
SARA-Superfund Amendments and Reauthorization Act
STOST-SE-Specific Target Organ Toxicity Single Exposure
TPQ-Threshold Planning Quantity
TSCA-Toxic Substance Control Act
TWA-Total Weight Average
U.N.-United Nation
UNCED-United Nations Conference on Environment and Development
VOL-Volume
WT-Weight