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Safety Data Sheet
VOLT-35

1. Identification

Product identifier	VOLT-35
Product code	HMVOLT3520LT
Other means of identification	VOLT-35, dielectric insulating oil
Recommended use of the chemical and restrictions on use	Electrical insulating oils.
Manufacturer	AEROCHEM Inc. 5977 Trans Canada Highway Pointe-Claire, QC H9R 1C1 Canada Tel. 514-630-2800 General Information: 1-888-592-5837 Fax 514-630-2828 www.aerochem.ca
Emergency phone number	Quebec Poison Center: 1-800-463-5060 (toll free in QC) INFOTRAC® 1-800-535-5053. International call collect: 1-352-323-3500 24 hours/day, 7 days/week.

2. Hazard identification

Summary	Avoid contact with skin, eyes and clothing. Do not breathe vapours, mists or aerosols. Do not ingest. If ingested consult physician immediately and show this Safety Data Sheet. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved.

WHMIS 2015/OSHA HCS 2012/GHS

Acute toxicity, inhalation (Category 4)
Eye irritation (Category 2B)
Specific target organ toxicity, repeated exposure (Category 1)
Aspiration hazard (Category 1)

DANGER

H372: Causes damage to organs through prolonged or repeated exposure
H304: May be fatal if swallowed and enters airways
H332: Harmful if inhaled
H320: Causes eye irritation
H316: Causes mild skin irritation
P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P202: Do not handle until all safety precautions have been read and understood.
P260: Do not breathe mist, vapours and spray.
P264: Wash skin thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves, protective clothing and eye protection.
P301+310+331: IF SWALLOWED: Immediately call a POISON CENTER or a physician. Do NOT induce vomiting.
P363: Wash contaminated clothing before reuse.
P332+313: If skin irritation occurs: Get medical advice or attention.

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337+313: If eye irritation persists: Get medical advice or attention.
P403+233: Store in a well ventilated place. Keep container tightly closed.
P501: Dispose of contents and container to an approved waste disposal plant.

Other hazards which do not result in classification
Skin irritation (Category 3).

3. Composition/information on ingredients

Common name	**CAS**	**Weight % content**
Lubricating oils (petroleum), C15-C30, hydrotreated neutral oil-based	72623-86-0	40 - 70 %
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	40 - 70 %
Note: The product is made at 99.9% of a mixture of these highly refined ingredients, containing no polycyclic aromatic hydrocarbon (PAH).		

4. First-aid measures

Inhalation	Move person to fresh air. If not breathing, give artificial respiration. If a problem develops or persists, seek medical attention.
Skin contact	Wash skin with warm water and mild soap. Remove contaminated clothing and wash before reuse. If a problem develops or persists, seek medical attention.
Eye contact	Flush with water for at least 15 minutes. Remove contact lenses if easy to do. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention.
Ingestion	DO NOT INDUCE VOMITING! If victim is conscious wash out mouth with plenty of water. Never give anything by mouth if victim is unconscious or convulsing. If spontaneous vomiting occurs, keep head below hip level to prevent aspiration into the lungs. Seek medical attention or contact a Poison Centre immediately.
Other	No information available.
Symptoms	May cause redness and slight irritation of the skin and to eyes.
Notes to the physician	Aspiration hazard for the lungs (ingestion/vomiting). Can enter lungs and cause damage. If gastric lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire-fighting measures

Suitable extinguishing media	dry powder, carbon dioxide (CO_2), chemical foam. Do not use a heavy water jet.
Specific hazards arising from the chemical	Non-Flammable. May be combustible at high temperature.
Special protective equipment	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
Special protective actions for fire-fighters	Use water spray to cool fire-exposed containers. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
Environmental precautions	Prevent entry into sewers, closed areas and release to the environment. For a large spill, consult the Department of Environment or the relevant authorities.
Methods and materials for containment and cleaning up	Ventilate the area well. Remove sources of ignition. Absorb with inert material (soil, sand, vermiculite) and place in an appropriate waste disposal clearly identified. Dispose via a licensed waste disposal contractor.

7. Handling and storage

Precautions for safe handling	Use in well ventilated area. Avoid contact with eyes. Avoid prolonged contact with skin. Avoid prolonged or repeated breathing of vapour or mists. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet. Avoid contamination with another chemical product. Keep containers tightly closed when not in use. Do not eat, do not drink and do not smoke during use. After use, wash hands with soap and water. Wash contaminated clothing before reuse.
Conditions for safe storage, including any incompatibilities	Store tightly close and in properly labelled container. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store away from incompatible materials (see section 10). Keep away from direct sunlight and heat.
Storage temperature	5 to 45°C (41 to 113°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	No IDLH value is reported.

Mixture	TWA (8h)	Mist	5 mg/m^3	ACGIH , RSST
Distillates (petroleum), hydrotreated light naphthenic	TWA (8h)	Mist	5 mg/m^3	ACGIH , OSHA, RSST
Lubricating oils (petroleum), C15-C30, hydrotreated neutral oil-based	STEL	Mist	10 mg/m^3	NIOSH
	TWA (8h)	Mist	5 mg/m^3	ACGIH , NIOSH, OSHA

Appropriate engineering controls	Provide sufficient mechanical ventilation (general and/or local exhaust) to keep the airborne concentrations of vapours, mists, aerosols or dust below their respective occupational exposure limits.
Individual protection measures	
Eye	Wear safety glasses. If there is a risk of contact with eyes, wear chemical splash goggles.
Hands	If any risk of skin contact wear nitrile gloves. Disposable nitrile gloves can also be used, but discard after single use. Before using, user should confirm impermeability. Discard gloves with tears, pinholes, or signs of wear. Gloves must only be worn on clean hands. Wash gloves with water before removing them. After using gloves, hands should be washed and dried thoroughly.
Skin	Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear normal work clothing covering arms and legs as required by employer code. To clean up a spill, if necessary, wear a synthetic polyethylene coveralls such as the Tychem (DuPont) or equivalent coveralls manufactured to provide protection against liquid chemical.
Respiratory	A respirator is not required under normal conditions of use. Where the conditions in the workplace require a respirator, it is necessary to follow a respiratory protection program. Moreover, respiratory

	protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and standard 29 CFR 1910.134 (OSHA), ANSI Z88.2 or CSA Z 94.11 (Canada) and approved by NIOSH/MSHA. In case of insufficient ventilation or in confined or enclosed space and for an assigned protection factor (APF) up to 10 times the exposure limit, wear a half mask respirator with organic vapour cartridges fitted with P100 filters. For an APF until maximum 100 times of exposure limit, wear a full face respirator mask with organic vapour cartridges and P100 filters.
Feet	Wear rubber boots to clean up a spill.


Safety glasses


Nitrile gloves

9. Physical and chemical properties

Physical state	Liquid	**Flammability**	Non-flammable.
Colour	Light yellow	**Flammability limits**	N/Av.
Odour	Characteristic	**Flash point**	>145°C (293°F) ASTM D-92
Odour threshold	N/Av.	**Auto-ignition temperature**	>350°C (662°F)
pH	N/Ap.	**Sensibility to electrostatic charges**	N.Av.
Melting point	N/Av.	**Sensibility to sparks and/or friction**	N.Av.
Freezing point	N/Av.	**Vapour density**	>1 (Air = 1)
Boiling point	>271°C (519.8°F)	**Relative density**	0.874 kg/L @ 15°C (59°F) (Water = 1)
Solubility	Insoluble in water.	**Partition coefficient n-octanol/water**	>3.5
Evaporation rate	N/Av.	**Decomposition temperature**	N/Av.
Vapour pressure	N/Av.	**Viscosity**	8 cSt @ 40°C (104°F)
Percent Volatile	N/Av.	**Molecular mass**	N/Ap.

N/Av.: Not Available N/Ap.: Not Applicable Und.: Undetermined N/E: Not Established

10. Stability and reactivity

Reactivity	No known dangerous reactions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions (including polymerizations)	Hazardous polymerization will not occur.
Conditions to avoid	Avoid contact with incompatible materials. Avoid high temperatures and intense heat.
Incompatible materials	Strong oxidizing agents (e.g. chlorine, fluorine, nitric acid, perchloric acid, peroxides, nitrates, chlorates, chromates, permanganates and perchlorates).
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products

	should not be produced.

11. Toxicological information

Numerical measures of toxicity	Distillates (petroleum), hydrotreated light naphthenic	Ingestion	>5000 mg/kg	Rat	LD50
		Inhalation	2.18 mg/l/4h	Rat	LC50
		Skin	>5000 mg/kg	Rabbit	LD50
	Lubricating oils (petroleum), C15-C30, hydrotreated neutral oil-based	Ingestion	>5000 mg/kg	Rat	LD50
		Inhalation	2.18 mg/l/4h	Rat	LC50
		Skin	>5000 mg/kg	Rabbit	LD50
Likely routes of exposure	Skin, eyes, inhalation, ingestion.				
Delayed, immediate and chronic effects	**Eye contact**	May cause redness and irritation to eyes. Eye Irritation/Corrosion, Rabbit (OECD TG 405): Lubricating oils (petroleum) hydrotreated (CAS no 72623-86-0) is described to be mild irritation (IUCLID). Distillates (petroleum), hydrotreated light naphthenic (CAS no 64742-53-6) is described to be slightly irritating (IUCLID).			
	Skin contact	May cause redness and slight irritation of the skin. Prolonged and repeated contact may cause dry skin, irritation or dermatitis. Skin Irritation/Corrosion, Rabbit (OECD 404) : Lubricating oils (petroleum) hydrotreated (CAS no 72623-86-0) is described to be mild irritation (IUCLID). Distillates (petroleum), hydrotreated light naphthenic (CAS no 64742-53-6) is described to be slightly irritating (IUCLID).			
	Inhalation	No known adverse affects under normal use conditions. Excessive inhalation is harmful. Mist exposure can cause irritation to nose, throat and lungs. Exposure to high concentrations may cause lung damage.			
	Ingestion	Low degree of acute toxicity. Harmful or fatal if inhaled into the lungs (ingestion/vomiting). Due to the low viscosity of the liquid, aspiration hazard can occur and cause lungs damage. May result in chemical pneumonitis and/or pulmonary edema.			
	Respiratory or skin sensitization	This product is not a skin or respiratory sensitizer. Skin sensitisation, Guinea pig (OECD 406): tests performed with each ingredient of this mixture gave negative results.			
	IARC/NTP Classification	No ingredients listed.			
	Carcinogenicity	Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA. The following information has been reported for the aliphatic petroleum distillates with regards to carcinogenicity (IARC, 1987): Untreated and mildly-treated oils are carcinogenic to humans (Group 1), and highly-refined oils are not classified as carcinogenic to humans.			
	Mutagenicity	Studies using the rats are not conclusive (somatic cell in vivo mutagenicity test).			
	Reproductive toxicity	Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause reproduction effects.			
	Specific target organ toxicity - single exposure	No target organ is listed.			
	Specific target organ toxicity - repeated exposure	Lungs, skin.			
Interactive effects	No information available.				
Other information	The acute toxicity estimate (ATE) by inhalation (mists/dusts) of the mixture was calculated to be greater than 1 mg/L/4h but lower than 5 mg/L/4h. This value is classified according to GHS: Acute toxicity, inhalation (Category 4).				

12. Ecological information

Ecological toxicity	Aquatic Invertebrate - Daphnia magna	EC50	>1000 mg/L; 48h (CAS no 64742-53-6)
	Fish (Chronic toxicity) - Rainbow trout - Oncorhynchus mykiss	LC50	>5000 mg/L; 96h (CAS no 64742-53-6)
Persistence	Persistent in the environment.		
Degradability	The product is a heavy hydrocarbon mixture in which some ingredients are not readily biodegradable (OECD 301B, IUCLID). Log Kow >3.5		
Bioaccumulative potential	The product is a mixture of heavy hydrocarbon which some ingredients may be bioaccumulative.		
Mobility in soil	Insoluble in water. This mixture is likely to have high Koc values (>5000), indicating a high degree of sorption to the organic matter in soils. This value suggests that some components will display low mobility and some will be essentially immobile in soil. This product pollutes water and contaminates the soil.		
Other adverse effects	This chemical does not deplete the ozone layer.		

13. Disposal considerations

Container 	Important! Prevent waste generation. Use in full. DO NOT dispose residue in sewers, streams or drinking water supply. Non-use oils or waste oils can be reprocessed (recycle) where there is a recovery program. Dispose via a licensed waste disposal contractor. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.

14. Transport information

UN Number	UN
UN Proper Shipping Name	Not regulated by TDG (Canada) and 49 CFR DOT (USA).
Environmental hazards	This material is not listed as a marine pollutant.
Special precautions for user	No information available for this product.
TDG - Transportation of Dangerous Goods (Canada)	
Transport hazard class(es)	Not regulated
Packing group	Not regulated
Emergency response guidebook 2016	
IMO/IMDG - International Maritime Transport	
Classification	Not regulated
IATA - International Air Transport Association	
Classification	Not regulated

These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. In addition, if a domestic exemption exists, it is the responsibility of the shipper to define the application of it.

15. Regulatory information

Other regulations	UNITED STATE OF AMERICA: - Toxic Substance Control Act (TSCA) : All ingredients are listed in the TSCA Inventory. - EPCRA Section 302/304 Extremely Hazardous Substances: No material is listed. - EPCRA Section 313 Toxic Chemicals: No material is listed. - CERCLA Hazardous Substances: No material is listed. - Clean Water Act (CWA) Priority Pollutants: No material is listed. - California Proposition 65: No material is listed. CANADA : - List of Toxic Substances Managed Under CEPA 1999 (annexe 1, Canadian Environmental Protection Act): No material is listed. - Canada DSL and NDSL: All ingredients are listed in the Domestic Substances List (DSL). - List of Toxic Substances Managed Under CEPA 1999 (annexe 1, Canadian Environmental Protection Act): No material is listed. - Canadian National Pollutant Release Inventory Substances (NPRI): No material is listed.
	WHMIS 1988 

Non-WHMIS controlled

HMIS

NFPA

16. Other information

Date (YYYY-MM-DD)	AEROCHEM INC. 2015-06-30
Version	01
Other information	REFERENCES: - Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, http://hazmap.nlm.nih.gov/index.php - Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), http://www.reptox.csst.qc.ca - High Production Volume (HPV) Chemical Challenge Program, U.S. EPA, http://www.epa.gov/hpv/ - NIOSH Pocket Guide to Chemical Hazards, Centers for Disease Control and Prevention, NIOSH Publications, 2007, http://www.cdc.gov/niosh/npg/npg.html - Database, Institut National de Recherche et de Sécurité, http://www.inrs.fr/accueil/produits/bdd.html ACGIH: American Conference of Governmental Industrial Hygienists AIHA: American Industrial Hygiene Association HMIS: Hazardous Materials Identification System NFPA: National Fire Protection Association

	OSHA: Occupational Safety and Health Administration (USA) NIOSH: National Institute for Occupational Safety and Health NTP: National Toxicology Program RSST: Règlement sur la santé et la sécurité du travail (Québec) GHS: Globally Harmonized System IARC: International Agency for Research on Cancer IDLH: Immediately Dangerous to Life or Health STEL: Short Term Exposure Limit (15 min) TWA: Time Weighted Averages WHMIS: Workplace Hazardous Materials Information System