



Safety Data Sheet

HAPS FREE INDUSTRIAL REDUCER



1. Identification

Product identifier	HAPS FREE INDUSTRIAL REDUCER		
Product code	SOL-9059		
Other means of identification	None.		
Recommended use of the chemical and restrictions on use	A protective and/or decorative finish or accompanying paint product. Not recommended for any other use not detailed on product data sheet or label.		
Manufacturer	GEMINI INDUSTRIES, INC. 2300 Holloway Drive El Reno, OK 73036 USA Tel. 1-800-262-5710 Fax 1-405-262-9310 www.geminicoatings.com		
Emergency phone number	24-hour Emergency (Spill, Leak, Exposure or accident) INFOTRAC 800-535-5053 Outside USA, Call Collect 1-352-323-3500 (French & English) HAZMAT Response and MSDS Help: EMI 800-510-8510		

2. Hazard identification

Summary	Keep away from heat, sparks and open flame. 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.
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WHMIS 2015/OSHA HCS 2012/GHS



- Flammable liquids (Category 2)
- Skin corrosion/irritation (Category 2)
- Serious eye damage/eye irritation (Category 2)
- Germ cell mutagenicity (Category 1A)
- Carcinogenicity (Category 1A)
- Reproductive toxicity (Category 1)
- Specific target organ toxicity, single exposure (Category 3)

DANGER

- H225: Highly Flammable liquid and vapour
- H350: May cause cancer
- H340: May cause genetic defects
- H360: May damage fertility or the unborn child
- H319: Causes serious eye irritation
- H315: Causes skin irritation
- H336: May cause drowsiness or dizziness
- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P210: Keep away from heat, sparks, open flames and other ignition sources. No smoking.

P240: Ground or bond container and receiving equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P261: Avoid breathing vapours, mist and spray.
P264: Wash skin thoroughly after handling.
P271: Use only in a well-ventilated area.
P280: Wear protective gloves, protective clothing and eye protection.
P303+361+353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water and soap or take a shower if necessary.
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.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
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.
P308+313: IF exposed or concerned: Get medical advice/attention.
P321: Specific treatment (see section 4 of SDS or on this label).
P362+364: Take off contaminated clothing and wash before reuse.
P370+378: In case of fire: Use the National Fire Protection Association Class B extinguisher for extinction.
P403+P235+P233: Store in a well-ventilated place. Keep container tightly closed. Keep cool.
P405: Store locked up.
P501: Dispose of contents and container to an approved waste disposal plant.

3. Composition/information on ingredients

Common name	CAS	Weight % content
Methyl ethyl ketone	78-93-3	34 - 36 %
Isobutyl acetate	110-19-0	28 - 30 %
Butyl acetate (normal)	123-86-4	20 - 22 %
Ethyl Alcohol	64-17-5	12.5 - 13.5 %

4. First-aid measures

Inhalation	Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention.
Skin contact	Wash skin with warm water and mild soap for at least 15 minutes. Remove contaminated clothing and wash before reuse. Avoid touching eyes with contaminated body parts. If a problem develops or persists, seek medical attention.
Eye contact	IMMEDIATELY flush with plenty of water. Remove contact lenses. Flush with water for at least 15 minutes. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention.
Ingestion	DO NOT induce vomiting, unless recommended by medical personnel. Never give anything by mouth if victim is unconscious or convulsing. If victim is conscious wash out mouth with water and give 1-2 glasses of water to drink. 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 irritation to eyes. May cause redness and irritation of the skin. Inhalation of vapours may cause central nervous system depression such as drowsiness, headache, dizziness, vertigo, nausea and fatigue.
Notes to the physician	Treat symptomatically. If 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	Class B extinguishers. Dry chemicals, alcohol resistant foam, carbon dioxide (CO ₂). Do not use direct water jet.
Specific hazards arising from the chemical	Very flammable liquid and vapours. Vapours are heavier than air and may travel to an ignition source distant from the material handling point. May be ignited by heat, sparks, flame or static electricity. Do not apply to hot surfaces. Contact with strong oxidizers may cause fire. In a fire or if heated, a pressure increase will occur and the container may burst. Emits toxic fumes under fire conditions.
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. Water spray can reduce the intensity of the flames. However, the water jets can spread the fire. 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 in sewer and other enclosed area. For a large spill, consult the Department of Environment or the relevant authorities.
Methods and materials for containment and cleaning up	Remove sources of ignition. Ventilate the area well. Stop leak, if it's possible to do so without risk. Absorb with inert material (soil, sand, vermiculite) and place in an appropriate waste disposal clearly identified. Use non-sparking and antistatic tools. Dispose via a licensed waste disposal contractor. Finish cleaning the contaminated surface by rinsing with soapy water. PS: Rags and others materials soaked with paint or solvent may spontaneously catch fire if improperly store or discarded. Immediately after each use place rags and paper towels in a sealed water-filled metal container to prevent spontaneous combustion.

7. Handling and storage

Precautions for safe handling	Keep away from heat, sparks and open flame. Turn off all pilot lights, flames, stoves, heaters, electric motors, welding equipment and other sources of ignition. Use non-sparking and antistatic tools. Ground/bond all containers when transferring large quantities (5 gallons US or 20 L and more). Use only in well ventilated area. Avoid prolonged or repeated breathing of vapour or mists. Avoid contact with skin, eyes and clothing. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Keep containers tightly closed when not in use. Containers of this material may be hazardous even when empty. Since empty containers retain product residues (vapour, liquid), all hazard precautions given in this sheet must be observed. Do not eat, do not drink and do not smoke during use. Wash hands, forearms and face thoroughly after handling this compound and before eating, drinking or using toiletries. Remove contaminated clothing and wash before reuse. Rags, steel wool and paper towels soaked with this product may overheat and spontaneously ignite if piled in a heap. After use immediately store them in water-filled metal can with tight fitting lid.
Conditions for safe storage, including any incompatibilities	Storage and handling should follow the NFPA 30 Flammable and/or Combustible Liquids Code and the National Fire Code of Canada (NFCC). Store tightly closed and in properly labelled container in a dry, cool and well ventilated place. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store away from oxidizing materials and incompatible materials (see section 10).
Storage temperature	10 to 25°C (50 to 77°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	N-Butyl acetate: 1700 ppm. Methyl ethyl ketone: 3000 ppm. Isobutyl acetate:1300 ppm. Ethyl alcohol: 3300 ppm.			
Methyl ethyl ketone	STEL	100 ppm 100 ppm 300 ppm	300 mg/m ³	BC RSST ACGIH , ON
	TWA (8h)	50 ppm 50 ppm 200 ppm	150 mg/m ³	BC RSST ACGIH , ON
Isobutyl acetate	TWA (8h)	150 ppm 150 ppm	700 mg/m ³ 713 mg/m ³	ACGIH , BC, ON OSHA RSST
Butyl acetate (normal)	STEL	200 ppm 200 ppm	950 mg/m ³	ACGIH , ON OSHA , RSST
	TWA (8h)	20 ppm 150 ppm 150 ppm	710 mg/m ³ 713 mg/m ³	BC ACGIH , ON OSHA RSST
Ethyl Alcohol	STEL	1000 ppm		ACGIH , BC, ON
	TWA (8h)	1000 ppm 1000 ppm	1880 mg/m ³ 1900 mg/m ³	RSST 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 chemical splash goggles.			
Hands	Wear nitrile or neoprene gloves. 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. Wear an apron or long-sleeve protective coverall suit.			
Respiratory	Respiratory protection is not required for normal use. Respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and CSA Standard Z 94.4 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.			

9. Physical and chemical properties

Physical state	Liquid	Flammability	Flammable
Colour	White or coloured	Flammability limits	N/Av.
Odour	Solvent	Flash point	-4°C (24.8°F)

Odour threshold	N/Av.	Auto-ignition temperature	N/Av.
pH	N/Av.	Sensibility to electrostatic charges	Yes
Melting point	N/Av.	Sensibility to sparks and/or friction	N/Av.
Freezing point	N/Av.	Vapour density	>1 (Air = 1)
Boiling point	78 to 126°C (172.4 to 258.8°F)	Relative density	0.838 kg/L (Water = 1)
Solubility	Partially soluble in water.	Partition coefficient n-octanol/water	N/Av.
Evaporation rate	> Butyl Acetate	Decomposition temperature	N/Av.
Vapour pressure	N/Av.	Viscosity	N/Av.
Percent Volatile	100%	Molecular mass	N/Av.
N/Av.: Not Available N/Av.: Not Applicable Und.: Undetermined N/E: Not Established			

10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions (including polymerizations)	A dangerous reaction will not occur.
Conditions to avoid	Avoid heat, flame and sparks. Avoid contact with incompatible materials.
Incompatible materials	Strong bases, mineral acids, strong oxidizing agents (such as nitric acid, perchloric acid, peroxides, chlorates 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	Methyl ethyl ketone	Ingestion	2737 mg/kg	Rat	LD50
		Inhalation	32.5 mg/l/4h	Rat	LC50
		Skin	6480 mg/kg	Rabbit	LD50
	Isobutyl acetate	Ingestion	13400 mg/kg	Rat	LD50
		Inhalation	>38 mg/l/4h	Rat	LC50
		Skin	>17400 mg/kg	Rabbit	LD50
	Butyl acetate (normal)	Ingestion	10768 mg/kg	Rat	LD50
		Inhalation	>32.5 mg/l/4h	Rat	LC50
		Skin	>17600 mg/kg	Rabbit	LD50
	Ethyl Alcohol	Ingestion	7060 mg/kg	Rat	LD50
		Inhalation	39 mg/l/4h	Mouse	LC50
		Skin	20000 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): tests performed with each ingredient of this mixture gave not irritating to irritating results.
	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) : tests performed with each ingredient of this mixture gave not irritating to irritating results.
	Inhalation	Excessive inhalation is harmful. Inhalation of vapours may cause central nervous system depression such as drowsiness, headache, dizziness, vertigo, nausea and fatigue. The severity of symptoms may vary depending on exposure conditions.
	Ingestion	Ingestion of large amounts may cause depression of the central nervous system characterized by headache, dizziness, convulsions and loss of consciousness.
	Respiratory or skin sensitization	Ingredients present at levels greater than or equal to 0.1% of this product are not skin or respiratory sensitizers.
	IARC/NTP Classification	No ingredients listed.
	Carcinogenicity	There is sufficient evidence for the carcinogenicity of alcoholic beverages in humans (IARC). The occurrence of malignant tumors of the oral cavity, pharynx, larynx, oesophagus, liver, breast and colorectal is causally related to the excessive consumption of alcoholic beverages. However, the possibility of such effects occurring is for chronic consumers of ethyl alcohol. The risk of cancer depends on duration and level of exposure.
	Mutagenicity	Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effects.
	Reproductive toxicity	Possible effects on reproduction (ethanol). A significant and prolonged consumption of ethyl alcohol during pregnancy can cause an increased risk of developmental abnormalities fetus humans.
	Specific target organ toxicity - single exposure	Central nervous system.
	Specific target organ toxicity - repeated exposure	No target organ is listed.
Interactive effects	No information available for this product.	
Other information	The oral and skin acute toxicity estimates (ATE) of the mixture were calculated to be greater than 2000 mg/kg. The acute toxicity estimate (ATE) by inhalation of the mixture was calculated to be greater than 20 mg/L/4h. This value is not classified according to GHS. These values are not classified according to WHMIS 2015 and OSHA HCS 2012.	

12. Ecological information

Ecological toxicity	Fish - Pimephales promelas - Fresh water	LC50 18 mg/L; 96 h (n-Butyl acetate) OECD 203
	Aquatic Invertebrate - Daphnia magna	EC50 44 mg/L; 48 h (n-Butyl acetate)
	Fish - Fathead minnow, Pimephales promelas - fresh water	LC50 3600 mg/L; 96 hr (MEK)
	Aquatic Invertebrate - Daphnia magna	EC50 5091 mg/L; 48 hr (MEK)
	Fish - Pimephales promelas [flow-through]	LC50 13400-15100 mg/L; 96 h (ethyl alcohol)
	Aquatic Invertebrate - Daphnia magna	EC50 9268-14221 mg/L; 48 h (ethyl alcohol)
Persistence	Contains an or many ingredients that may be persistent in aquatic environment.	
Degradability	Methyl ethyl ketone can undergo a slow oxidative decomposition in air and light and form methyl ethyl ketone peroxide. It is readily biodegradable, 76% in 5 days and 100% in 28 days (OECD 301D). n-Butyl acetate is readily biodegradable (96% in 28 days) OECD Guideline 301D. Isobutyl acetate is expected to biodegrade in soil and water environments based on 5- and 20- day theoretical biochemical oxygen	

	demands of 60% and 81%, respectively, in fresh water dilution tests (TOXNET). Ethanol is readily biodegradable under aerobic and anaerobic conditions (OECD Test Guideline 301D).
Bioaccumulative potential	Methyl ethyl ketone is not expected to accumulate in aquatic organisms according to its low values of bioconcentration factor (BCF) of 0,5 to 1 and its partition coefficient (Log Kow 0,29). n-Butyl acetate has a low potential for bioaccumulation based on estimated bioconcentration factors (BCF) of 15.3 and low partition coefficient (Log Kow 2.3). Isobutyl acetate is not expected to bioaccumulate based on a bioconcentration factor (BCF) of 7 and a partition coefficient Log Kow of 1.78 (TOXNET). Ethanol has a Bioconcentration Factor (BCF) value of <10, and its Log Kow value is <0, indicating its potential to bioaccumulate is low.
Mobility in soil	Methyl ethyl ketone is soluble in water and it should evaporate moderately from water. Its measured Koc values of 29 and 34 suggest that methyl ethyl ketone is expected to have very high mobility in soil (TOXNET). Distribution air, water, soil and sediment: 13.8%/ 49.1%/ 37%/ 0.08%. n-Butyl acetate will be distributed to air (93.4%), water (5.78%), soil (0.792%), and sediment (<0.1%). The Koc value of n-butyl acetate can be estimated to be 19, suggesting that it is expected to have very high mobility in soil. Isobutyl acetate is expected to have very high mobility in water based on an estimated Koc of 16 (TOXNET). Ethanol is very soluble in water. The resultant Koc of 1 indicates that ethanol released in soil would move quickly through the soil. It will be distributed mainly in the atmosphere (57%) and water (34%).
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 of residue in sewers, streams or drinking water supply. DO NOT puncture, cut, heat or burn container, even after use. Paint residues, including lacquers, stains, shellac, varnish, solvents and paint thinners, can be reprocessed (recycle) anywhere 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.
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14. Transport information

UN Number	UN 1263
UN Proper Shipping Name	PAINT RELATED MATERIAL
Environmental hazards	This material does not contain marine pollutant.
Special precautions for user	Permit required for transportation with proper placards displayed on vehicle.
TDG - Transportation of Dangerous Goods (Canada)	
Transport hazard class(es)	 Class 3
Packing group	II
IMO/IMDG - International Maritime Transport	
Classification	UN 1263. PAINT RELATED MATERIAL. Class 3, PG II. Emergency schedules (EmS-No) F-E, S-E
IATA - International Air Transport Association	
Classification	UN 1263. PAINT RELATED MATERIAL. Class 3, PG II.

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

CANADA

Common name	CAS	CEPA	DSL	NDSL	NPRI
Methyl ethyl ketone	78-93-3	X	X		X
Isobutyl acetate	110-19-0		X		
Butyl acetate (normal)	123-86-4	X	X		X
Ethyl Alcohol	64-17-5	X	X		X

- CEPA: List of Toxic Substances Managed Under Canadian Environmental Protection Act
- DSL: Domestic Substances List Inventory
- NDSL: Non-Domestic Substances List Inventory
- NPRI: National Pollutant Release Inventory Substances

UNITED STATE OF AMERICA

Common name	CAS	TSCA	CERCLA	EPCRA 313	EPCRA 302/304	CAA 112(b) HON	CAA 112(b) HAP	CAA 112(r)	CWA 311	CWA Priority
Methyl ethyl ketone	78-93-3	X	X	X		X	X			
Isobutyl acetate	110-19-0	X	X							
Butyl acetate (normal)	123-86-4	X	X						X	
Ethyl Alcohol	64-17-5	X								

- TSCA: Toxic Substance Control Act
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances
- EPCRA 313: Emergency Planning and Community Right-to-Know Act, Section 313 Toxic Chemicals
- EPCRA 302/304: Emergency Planning and Community Right-to-Know Act, Section 302/304 Extremely Hazardous Substances
- CAA 112(b) HON: Clean Air Act - Hazardous Organic National Emission Standard for Hazardous Air Pollutant
- CAA 112(b) HAP: Clean Air Act - Hazardous Air Pollutants lists pollutants
- CAA 112(r): Clean Air Act - Regulated Chemicals for Accidental Release Prevention
- CWA 311: Clean Water Act - List of Hazardous Substances
- CWA Priority: Clean Water Act - Priority Pollutant list

California Proposition 65

Common name	CAS	Cancer	Reproductive and Developmental Toxicity
Ethyl Alcohol	64-17-5	X	

Other regulations

WHMIS 1988



B2

D2B

Class B2 : Flammable Liquid

Class D2B : Toxic material causing other toxic effects

HMIS



NFPA



16. Other information

Date (YYYY-MM-DD)	GEMINI INDUSTRIES, INC. 2016-02-22
Version	01
Other information	<p>- This SDS and the GHS hazards classification is a French translation of the original English version (SDS) from the manufacturer.</p> <p>REFERENCES:</p> <ul style="list-style-type: none">- Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, http://hazmap.nlm.nih.gov/index.php- TOXNET Databases, Toxicology Data Network, NIH U.S. National Library of Medicine, http://toxnet.nlm.nih.gov/- 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- NIOSH Pocket Guide to Chemical Hazards, Centers for Disease Control and Prevention, NIOSH Publications, 2007, http://www.cdc.gov/niosh/npg/npg.html- IPCS INCHEM, Chemical Safety Information from Intergovernmental Organizations, Canadian Centre for Occupational Health and Safety (CCOHS), Copyright International Programme on Chemical Safety (IPCS), http://www.inchem.org- OECD Existing Chemicals Database, Chemicals Screening Information DataSet (SIDS) for High Volume Chemicals, UNEP publications, http://webnet.oecd.org/HPV/UI/Search.aspx <p>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</p> <p>To the best of our knowledge, the information contained herein is accurate. However, neither Préventis System nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.</p>