

Section 1 – PRODUCT AND COMPANY INFORMATION

Manufacturer IMS Company
10373 Stafford Road
Chagrin Falls, OH 44023-5296
WEB imscompany.com

Emergency Phone 800-424-9300
Prepared by Product Safety Advisor
Origin Date February 20, 2006
E-mail sales@imscompany.com

Item Number 111598
Size 12 ounce aerosol
Former item number AEM1-C10016

Product use Cleaner, spray, for molds, all metal and plastic parts, general shop cleaning, biodegradable, environmentally friendly.

Hazardous Material Information System

Health 1	Flammability 4	Reactivity 0	Protection X
0 Normal use Material	0 Will Not Burn	0 Stable	X = Consult the
1 Slight Hazard (temporary)	1 Possible to Burn	1 Unstable if Heated	MSDS and
2 Health Affected (lengthy)	2 Burns if Heated	2 Violent Chemical Change	your supervisor
3 Extreme Danger	3 Easily Burns	3 Shock and Heat Sensitive	for your special
4 Severe or Fatal	4 Very Easily Burns	4 May Explode	workplace need

* Chronic (Accumulates)

NOTE The HMIS may not be enough hazard information for this chemical in all workplaces. The HMIS system requires employee training about the system and about information in this MSDS.

Section 2 – INGREDIENTS INFORMATION

#	Chemical/Common Name	CAS-Number	%	PEL-OSHA	TLV-ACGIH
1	d-Limonene	5989-27-5	60 to 80	(1)	(1)
2	Liquefied Petroleum Gas	68476-85-7	15 to 35	(1)	(1)
3	Oxygenated Terpenes & Terpene Hydrocarbons	Mixtures	0.1 to 10	(1)	(1)

(1) Not Established

This product Does Not Contain carcinogens according to NTP, IARC, or OSHA.

Section 3 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW Small amount is not expected to cause any emergency condition.

HEALTH EFFECTS (Acute and Chronic exposures)

Nose Vapors from elevated temperatures may cause respiratory irritation, harmful if aspirated into lungs.

Mouth May be harmful if swallowed. Possible irritation, nausea, or diarrhea.

Eyes Minimal irritation, tearing, reddening, or swelling. Avoid prolonged contact.

Skin May irritate skin. Avoid long-term contact. Prolonged contact may result in defatting, drying which may lead to irritation, dermatitis, allergic reaction. If injected under skin, necrosis could result.

Chronic Not available

ROUTE OF ENTRY Skin contact, inhalation, eye contact.

TARGET ORGANS, MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE Preexisting eye disorders, chronic respiratory disease, dermatitis could be aggravated by exposure to this type of product or increased symptoms due to irritation.

Section 4 – FIRST AID MEASURES

NOTE If irritation persists after any kind of exposure, get medical help.

Breathing Vapors are not likely to injure, unless the product is heated. Get to fresh air if symptoms appear. If breathing has stopped, administer artificial respiration and get medical attention.

Eating Get Medical Help at once. Do not induce vomiting. Drink milk or water to dilute substance.

Eye Contact Immediately flush eyes thoroughly with plenty of water for at least 15 minutes. Remove contact lenses. Hold eyelids open to irrigate fully. Get medical attention if irritation persists.

Skin Contact Remove contaminated clothing. Wash exposed area with soap and water. Wash contaminated clothing before re-use. If irritation persists, or if contact has been prolonged, get medical attention.

Medical Notes Treat symptomatically

Section 5 – FIRE FIGHTING MEASURES

Flash Point (estimated) < 0° F (-17° C) Flammable Limits.....LEL = 0.7 %UEL = 6.1 %

Autoignition temperatureND

Flashpoint and Flammability limits are based on propellant components.

EXTREMELY FLAMMABLE PROPELLANT

VAPOR MAY CAUSE FLASH FIRE

Extinguishing Media Alcohol-type foam, or all-purpose-type foam, for large fires. Carbon dioxide or dry chemical for small fires.

Special Fire Fighting Procedures Cool exposed containers with water. Do not direct a solid stream of water or foam into hot, burning pools; this may cause frothing and increase fire intensity. Firefighters should wear full bunker gear, self-contained, positive-pressure breathing apparatus, and protective clothing.

Sensitivity to mechanical impact None

Sensitivity to static discharge (ESD) As with all compressed gas spray cans, high sensitivity to being a source of ESD. And as with combustible aerosols, high sensitivity to ignition from ESD. Static-electric sparks could ignite accumulated vapors. Use caution where static-electric sparks can occur, such as around spinnerettes and extrusion dies. Ensure enough ventilation to avoid accumulation of spray or vapor, especially when spraying where there is an enclosure that would otherwise let vapors accumulate.

Unusual Fire and Explosion Hazards Streams of water are likely to spread fire. Use water spray only to cool containers. Stable at ambient temperatures and pressures. Toxic fumes may be evolved on burning or exposure to heat. At elevated temperatures (>120° F / >49° F), pressurized containers may vent or rupture. Use equipment or shielding to protect personnel against rupturing or venting containers. Cooling with water streams may be helpful.

Section 6 – ACCIDENTAL RELEASE MEASURES

Steps to be Taken in Case Material is Released or Spilled Remove sources of ignition. Ventilate area to reduce concentration of the components below their exposure limits. Wear appropriate personal protective equipment according to the conditions, such as respirator and protective clothing. Small spills can be collected or absorbed with appropriate absorbing materials. Soak up residue with an absorbent such as clay, sand, or other suitable material; store in closed containers for proper disposal. Flush area with water to remove trace residues, but do not let product or contaminated water get to drains, sewers, or rainfall. All spill response should be carried out in accordance with Federal, State, County/Provincial, and local requirements.

Section 7 – HANDLING AND STORAGE

Precautions to be Taken in Storage Eliminate open flames and other sources of ignition from the storage area. Observe applicable fire codes. Store in accordance with good industrial practices. These include store in cool, dry area out of direct sunlight (below 120° F, 49° C). Do not puncture or burn containers.

Handling As with all chemical products, thoroughly wash after handling and before eating, drinking, or using tobacco products.

Maintenance Precautions Note: may cause swelling of gaskets and valves of some conventional materials. Viton and Neoprene are better choices for gaskets than Butyl or Buna. Valves and containers should have an epoxy coating. Do not remove or deface label. Keep container closed.

Other Precautions As per any petroleum-based products, read and follow directions and cautions on the container label. Give empty, leaking, or full containers to a disposal service equipped to handle and dispose of pressurized containers. Read and follow directions and cautions on the container label, and any accompanying literature.

Section 8 – EXPOSURE CONTROLS – PERSONAL PROTECTION

Ventilation Usually not specifically required. No local exhaust required, usually. General (mechanical) room ventilation may be adequate to maintain product and its components below TLV/PEL, if handled at ambient temperatures or in covered equipment. Local exhaust ventilation or other engineering controls may be required, if ambient temperatures are exceeded or if used in operations that may produce mist, aerosol, or vapor. Also maintain enough ventilation to prevent fire/flash hazard from local accumulation of vapors, especially near sources of high heat, electric arcs or static-electric sparks.

Respiratory Protection Usually none required if adequate ventilation is provided. If personnel exposure exceeds exposure limit at any time, select respiratory protection equipment in accordance with 29 CFR 1910.134. NIOSH approved atmosphere-supplying respirator or a NIOSH approved air-purifying respirator with organic vapor cartridge and dust/mist pre-filter is recommended.

Protective Gloves To avoid long-term or repeated contact, wear solvent-resistant gloves: natural rubber, neoprene, nitrile (NBR), and butyl are recommended materials.

Other Protective Equipment If contact with the spray is likely, eye protection is recommended. Goggles, safety glasses with side shields or a face shield will provide protection in most situations.

Section 8 – EXPOSURE CONTROLS – PERSONAL PROTECTION (continued)

Other Engineering Controls To determine exposure levels, monitoring should be performed. Eye bath and safety shower station should be available.

Work Practices Avoid long-term or repeated contact. Stained clothing should be removed and laundered before re-use. Release of vapor from process equipment at elevated temperature and pressure, or sudden ingress of air into hot equipment, may result in ignition without the presence of obvious ignition sources. Autoignition temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Use of this product at an elevated temperature must be thoroughly evaluated to establish and maintain safe operating conditions. Avoid contact with eyes. Wear chemical goggles if there is likelihood of contact. Avoid prolonged or repeated contact with skin. Wear chemical resistant gloves and other clothing as required to minimize contact. Ventilation should maintain the concentration of the components below their TLV/PEL values.

Hygienic Practices Avoid contact with skin and avoid breathing vapors. Do not eat, drink, or smoke in work area. Wash hands before eating, drinking, or using restroom after using this or any chemical product. Launder contaminated clothing before reuse. After using any chemical product, wash thoroughly before eating or smoking.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point	N/A	Specific Gravity (Water=1)	< 1
Vapor Pressure (psig)	40 ± 10	Percent Volatile by Volume (%).....	> 95
Vapor Density (Air=1).....	> 1	Evaporation Rate (butyl acetate=1)	Slower
VOC.....	ND	Pour point	ND
Solubility in Water	Slight	pH.....	ND
Melting point.....	ND	Odor threshold.....	ND

Appearance and Odor Information Clear mist with the odor of citrus as dispensed from the aerosol.

Section 10 – STABILITY AND REACTIVITY

Incompatibility (reactivity, materials to avoid) Strong oxidizers, strong caustics, strong acids.

Hazardous Polymerization? No, See Incompatibility

Product Chemically Stable? Yes

Decomposition Products Carbon monoxide, carbon dioxide, unidentified organic compounds and various incompletely burned hydrocarbon products would be expected.

Conditions to Keep Stability Avoid contact with open flame, electric arcs, or other hot surfaces that can cause thermal decomposition. Avoid temperatures high enough to rupture container. Do not spray into flame or onto red-hot surfaces, which could ignite spray. See Incompatibility

Section 11 – TOXICOLOGICAL INFORMATION

COMPONENT # COMMENTS

1, 2, 3..... Not listed in NTP, IARC, OSHA, Prop 65, or SARA 313. Generally Recognized As Safe (GRAS) by FDA as a component/cleaner/lubricant of non-food article in contact with food directly as a result of incidental contact with container or equipment.

LD₅₀, LC₅₀..... NA

Reproductive Toxicity NA

Irritancy, sensitivity .. See sections 3 and 4

Section 12 – ECOLOGICAL INFORMATION

COMPONENT # COMMENTS

1, 2, 3.....No ecological or environmental effects known

Section 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Methods Consult Federal, State, County/Provincial, and Local regulations. Product is readily reclaimed from many applications; reclamation from spent fluids is encouraged where possible. This product is biodegradable. Where reclamation is not practical, this product may be incinerated where permitted under Federal, State, County/Provincial, and Local regulations. Never dispose by means of public sewers or drainage. Empty containers should be recycled or disposed of through an approved waste management facility.

Section 14 – TRANSPORT INFORMATION

Ground (US DOT) Consumer Commodity OR Aerosols (Limited Quantity)
Class ORM-D 2.1
ERG 126 126
Air (IATA)..... Consumer commodity
Class 9 (Label Diamond required)
UN/ID No. ID 8000
Packing 1900
Authorization Limited Quantity
Vessel Aerosols (Limited Quantity)
Class 2.1
UN No: 1950
EmS No. 2-13
ERG 126

Section 15 – REGULATORY INFORMATION

	Component 1	Component 2	Component 3	Product AS WHOLE
ACGIH	N	N	N	N
AIHA	N	N	N	N
ANSI	N	N	N	N
Canada - DSL	Y	Y	Y	MIXTURE
CFC	N	N	N	N
EINECS listed	227-813-5	N	227-813-5	MIXTURE
EPA - CAA, CWA	VOC	N	VOC	VOC
EU risk phrase #'s	NA	NA	NA	NA
FDA-21 CFR 174.5 (2) (d)	GRAS	GRAS	GRAS	GRAS
HCFC	N	N	N	N
IDLH	N	N	N	N
ODS-Ozone Dep. Sub.	N	N	N	N
OSHA listed	N	Y	N	N
PROP 65 listed	N	N	N	N
RCRA listed	N	N	N	N
SARA 313 list	N	N	N	N
TSCA listed	Y	Y	Y	MIXTURE
USDA H-1, -2	Y	Y	Y	Y
WHMIS-class	N	N	N	N

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains information required by the CPR.

Section 16 – OTHER INFORMATION

CAUTION Intentional misuse of this chemical product, as with any industrial chemical in contact with the body, can be harmful or fatal. This includes such things as deliberately breathing, placing in mouth, swallowing, placing on skin, or any other body contact, or repeated or continuous contact.

IMS provides this information in good faith, but makes no representation as to its comprehensiveness or its accuracy. This document is offered as a guide to a trained person, for appropriate precautionary handling. Persons using the product and receiving the information must exercise independent judgment in determining the appropriateness of the use and the safety information for their particular purpose. IMS MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THIS INFORMATION OR TO THE PRODUCT. ACCORDINGLY, IMS WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE ON THIS INFORMATION.

ACGIH	American Conference of Governmental Hygienists	NA	Not Applicable, Not Available
AKA	Also Known As, Synonym	ND	Not Determined
CAS	Chemical Abstract Service	NIL	Not measurable, significant, noticeable, or an affect
GRAS	Generally Recognized As Safe by FDA rule or listing	NTP	National Toxicology Program
H-1, -2	USDA, plant process chemicals that do not touch food stuff	OSHA	Occupational Safety and Health Administration
IARC	International Agency for Research of Cancer	ppm	parts per million
IDLH	Immediately Dangerous to Life or Health, exposure rate/volume	USDA	U S Department of Agriculture
mg/m ³	milligrams per Cubic Meter	Y	Yes, Does Exists, Is Listed,
N	No, None, Not listed, Not Known		