

Section 1 – PRODUCT AND COMPANY INFORMATION

Manufacturer IMS Company
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Prepared by Product Safety Advisor
Origin Date October 24, 2002
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Item Number 126674
Size 12 ounce aerosol

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

Hazardous Material Information System

Health	1	Flammability	2	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	Terpenes	5989-27-5	90 to 99.9	(1)	(1)
2	Carbon Dioxide	124-38-9	0.1 to 10	5000 ppm	5000 ppm

(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. Combustible Liquid rated, but Flammable Aerosol rated by CPSC definitions, 16 CFR 1500.3. Remove contaminated clothing

HEALTH EFFECTS (Acute and Chronic exposures)

Nose Vapors from elevated temperatures may cause respiratory irritation.

Mouth 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, skin absorption, eye contact.

TARGET ORGANS, MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE Preexisting skin, and eye disorders could be aggravated by exposure to this type of product.

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 Do not induce vomiting, get medical attention.

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 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)115° F(46° C) Flammable Limits.....LEL = 0.7 %.....UEL = 6.1 %
Autoignition temperature458° F(237° C)

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.

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.

Section 6 – ACCIDENTAL RELEASE MEASURES

Steps to be Taken in Case Material is Released or Spilled Product will burn, although not readily ignitable. 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. Dispose of properly. 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.

Wear appropriate personal protective equipment according to the conditions, such as respirator and protective clothing.

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 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.

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.

Respiratory Protection Usually none. 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 If needed to avoid long-term or repeated contact, natural rubber, neoprene, nitrile (NBR), and butyl are recommended materials.

Other Protective Equipment Safety glasses or goggles, and face shield, as appropriate for exposure.

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.....	310° F(154° C)	Specific Gravity (Water=1)	0.87
Vapor Pressure at d-Limonene only ...	2 mm HG	Percent Volatile by Volume (%)	95
Vapor Density (Air=1).....	4.7	Evaporation Rate (butyl acetate=1)	Medium
VOC	837g/l	Pour point	NA
Solubility in Water.....	NIL	pH.....	NA
Melting point.....	-102° F(-74° C)	Odor threshold	NA

Appearance and Odor Information Clear or water white to pale straw, like a light oil, orange aroma.

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, and unidentified organic compounds.

Conditions to Keep Stability Temperatures below 120° F(49° C), See Incompatibility

Conditions to Avoid for Polymerization/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, 2Not 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, 2No 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	Product
ACGIH	N	N	N
AIHA	N	N	N
ANSI	N	N	N
Canada - DSL	Y	Y	MIXTURE
CFC	N	N	N
EINECS listed	227-813-5	204-696-9	MIXTURE
EPA - CAA, CWA	VOC	N	VOC
EU risk phrase #'s	NA	NA	S-9 16 28 33
FDA-21 CFR 174.5 (2) (d)	GRAS	GRAS	GRAS
HCFC	N	N	N
IDLH	N	N	N
ODS-Ozone Dep. Sub.	N	N	N
OSHA listed	N	Y	N
PROP 65 listed	N	N	N
RCRA listed	N	N	N
SARA 313 list	N	N	N
TSCA listed	Y	Y	MIXTURE
USDA H-1, -2	Y	Y	Y
WHMIS-class	N	N	A

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		