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CLEAN ACROSS AMERICA AND THROUGHOUT THE WORLD"

ZEP MANUFACTURING COMPANY P.O. BOX 2015 ATLANTA, GEORGIA 30301

MATERIAL SAFETY DATA SHEE AND SAFE HANDLING AND DISPUSAL INFORM

2/15/94

ISSUE DATE: 09/11/92 SUPERSEDES: 04/23/90

PRODUCT NO. (SA)

Aceptal Depticem

SECTION I - EMERGENCY CONTACTS

TELEPHONE: (404) 352-1680

BETWEEN 8:00 AM - 5:00 PM (EST)

MEDICAL EMERGENCY:

(404) 435-2973 (404) 432-2873

NON-OFFICE HOURS, WEEKENDS AND HOUDAYS, PLEASE CALL YOUR LOCAL POISON CONTROL

(404) 424-4789 (404) 319-6151 (404) 242-3561

TRANSPORTATION EMERGENCY:

(404) 922-0923

CHEMTREC:

TOLL-FREE - ALL CALLS RECORDED

1-800-424-9300 DISTRICT OF COLUMBIA: (202) 483-7616

ALL CALLS RECORDED

SECTION II - HAZARDOUS INGREDIENTS

ETHANOL * ethyl alcohol; grain alcohol; CAS# 84-17-5; RTECS# KQ6300000; QSHA PEL- 1000 ppm # BLEND OF [PROPANE: CAS# 74-98-6; RTECS# TX2775000] & [n-BUTANE; CAS# 106-97-8; RTECS# EJ4200000]

1000 800

TLV

(PPM)

SFFECTS % IN PROD. (SEE REVERSE) IRR FBL 20-30 50-60

FBL

- OSHA PFT - ROO PPM

SECTION III - HEALTH HAZARD DATA

Special Note: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

Direct contact with the spray mist can cause eye initation such as stinging and burning. This product may cause slight skn initation. No medical conditions are known to be aggravated by overexposure to this product or ingredients in this product.

Chronic officials from alcohol vapors are rare and would only result from prolonged and repeated contact, which is unlikely due to the packaging of this product. None of the ingredients are listed as carcinogens by IARC, NTP, or OSHA. Primary Routes of Entry: Inh.

Ext'd PEL/TLV: Not established

HANS Codes: HEALTH 1,FLAM. 3; REACT. 1; PERS. PROTECT. A ; CHRONIC HAZ. NO

Wash conteminated skin thoroughly with soap or a mild detergent. Apply a skin cream with landin, Get medical attention if irritation persists.

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally litting upper and lower lids. Get medical attention at once.

Inhale: Move exposed person to fresh air. If irritation persists, get medical attention promptly.

Inhale: If swallowed, do not induce vomiting, if vomiting occurs, keep head below hip level. Get emergency medical attention immediately.

SECTION IV - SPECIAL PROTECTION INFORMATION

Protective Clothing: Eye Protection:

Respiratory Protection:

No special measures are required. No special measures are required. Avoid direct inhalation of concentrated spray mist and do not direct spray toward people.

Ventilation:

No special measures are required.

SECTION V - PHYSICAL DATA

Boiling Point (*F): 165
Percent Votatile by Yolume (%): 255

Specific Gravity:

Vapor Density (air = 1): > NA Vapor Pressure (mmHg): Evaporation Rate (BUTYL ACETATE =1): pH (use dilution of):

Solublity in Water: NEGLIGIBLE pH (concentrate):
Appearance and Odon VERY DRY SPRAY WITH A PLEASANT ORANGE SCENT

SECTION VI - FIRE AND EXPLOSION DATA

Flash Point (*F) (method used): 70F (on conc.) (TCC)
Flammable Limits: LEL 1.9 UEL 9.5

Flammable Limit

Extinguishing Media:

Water

Special Fire Fighting: Unusual Fire Hazarda: Wear self-contained positive pres. breathing apparatus. Direct water onto intact containers to prevent bursting.

EP MANUFACTURING COMPANY MATERIAL SAFETY DATA SHEET .09/02

SECTION VII - REACTIVITY DATA

tability: compatibility (avoid): azardous Decomposition:

Heat, open flame, spark, and oxidizing agents.

Will not nexus

Carbon dioxide, carbon monoxide, and other unidentified organic compounds.

SECTION VIII - SPILL AND DISPOSAL PROCEDURES

teps to be Taken in Case Material is Released or Spilled: Ibserve safety precautions in sections 4 & 9 during spill clean-up. Large spills are unlikely due to packaging. Spill may be absorbed on an inert absorbent material (eg ep-Q-Zorb), and placed in a suitable container for disposal. Wash area thoroughly with a cetergent solution and rinse well with water.

reach unsposes ensured:
Toduct is consumed in use. Do not crush, puncture or incinerate spent containers. Large numbers of aerosol containers may require handling as a hazardous waste, but a most states total hazardous waste quantities less than 220 lbs per month may allow disposal in a chemical or industrial waste landfill. Consult local, state and federal gencies for the proper disposal method in your area.

ICRA Hazardous Waste Numbers: N/A

SECTION IX SPECIAL PRECAUTIONS

recautions to be Taken When Handling and Storing:

to not store at temperatures above 120F, or in direct sunlight. Do not puncture or incinerate container. Keep product out of eyes. Keep out of the reach of children.

SECTION X - TRANSPORTATION DATA

NOT Proper Shipping Name: CONSUMER COMMODITY, NOT Hazard Class; ORM-D

IOT I.D. Number: N/A

PA TSCA Chemical Inventory: ALL INGREDIENTS ARE LISTED PA CWA 4UCHI Part 117 substance (RQ in a single container) . NONC

NOTICE

tank you for your interest in, and tise of, Zep products as Manufacturing Co. is pleased to be of service to you by ipplying this Material Safety Data Sheet for your files. Zep anutacturing is concerned for your highly and safety. Zep roducts can be used safety with proper protective equipent and proper handling practices consistent with label structions and the MRDS. Before using any Zep product. a sure to read the complete label and the Material Safety

e a further word of caution. Zeo wishes to advise that arious accidents have resulted from the misuse of emptled containers. "Empty" containers retain residue emptied" containers. "Empty" containers retain residue iquid and/or vapor) and can be dangerous. DO NOT presurtae, qui, weld, traze, solder, drill, grind or expose such ontainers to heat, flame, or other sources of ignition; they say explode or develop hammful vapors and possibly cause into the containers by triple rimsing inth water or an appropriate solvent. Empty containers just be sent to a drum reconditioner before reuse.

TERMS AND ABBREVIATIONS USED IN THE MSDS: BY SECTION ALPHABETICALLY:

ECTION IL HAZARDOUS INGREDIENTS

AR: Carcinogen - A chemical listed by the National Toxicol-gy Program (NTP), the International Agency for Research in Cancer (IARC) or OSHA as a definite or possible human Cancer (IARC) or OSHA as a definite or possible human

ancer causing agent.

AC #: Chemical Abgusot Service Registry Number - A
miversally accepted numbering system for chemical sub-

Tances.

18. Combustible - At temperatures between 100°F and 100°F chemical gives off enough vapor to ignite if a source if lightion is present as tested with a closed cup tester.

18. Contral Nervous System depressant reduces the activity of the brain and epinal cord.

OR; Corrosive - Causes irreversible alterations in living

issue (e.g. burns). >ESIGNATIONS: Chemical and common names of hazardous

ngredients. BR: Eye tritant Only - Causes reversible reddening and/or

ntiammation of eye tissues.

EXPOSURE LIMITS: The time weighted average (TWA) airsome concentration at which most workers can be exposed without any expected adverse effects. Primary sources in-stude ACGIH TLV's, and OSHA PEU's (TWA, STEL and ceiling

ACGIH: American Conference of Governmental Industrial

Hygienists.

CEII ING: The concentration that should not be excess

and of the working expos-CHAINES: The concentration that smaller not not excessions in the workplace during any part of the working exposure. OSMA: Occupational Safety and Health Administration PEL; Permissible Exposure Limit- A set of time weighted average exposure values, established by OSHA. for a normal 8-hour day and a 40-hour work week.

PPM; Parts per million - unit of measure for exposure

(S) SKIN: Skin contact with substance can contribute to

overall exposure.

STEL: Short Term Exposure Limit- Maximum concentration

for a continuous 15-minute exposure period. TLV; Threshold Limit Value - A set of time weighted average exposure limits, established by the ACGIH, for a workal b-nour day and a 40 hour work wook.

FBL: Flammable - At temperatures under 100°F, chemical

DOT Label/Placard: ORM-D

gives off enough vapor to ignite if a source of ignition is present as tested with a closed cup tester. HAZARDOUS (NGREDIENTS: Chemical substances defe-

mined to be potential health or physical hazards beforeined to be potential health or physical hazards by the criteria established in the OSHA Hazard Communication Otanderd 20 CFR 1910.1200

HTX; Highly tools - the probable lethal dose for 70 kg (150 kb) man and and the communication of the probable lethal dose for 70 kg (150 kb) man and the communication of the probable lethal dose for 70 kg (150 kb) man and the communication of the communicatio

th) man and may be approximated as less than 6 teaspoons (2 tablespoons).

RA: Instant - Causes reversible effects in Inving tissues (e.g.

inflammation) - primarily skin and eyes N/A: Not Applicable - Category is not appropriate for this

product. N/D; Not Determined - Insufficient Information for a deter-

mination for this item. RTECS#; Registry of Toxic Effects of Chemical Substances an unreviewed listing of published toxicology data on

chamical substances. SARA: Supertund Amendments and Reauthorization Act -Section 313 designates chemicals for possible reporting for the Toxics Release inventory.

SEN: Sensitizer - Causes altergic reaction after repeated

exposure. TOX: Toxic - The probable lethal dose for a 70 kg (130 lb.) man is the ounce (2 tablespoons) or more.

SECTION III: HEALTH HAZARD DATA

ACUTE EFFECT: An adverse effect on the human body Ingite a single exposure with symptoms developing almost imme-

a single exposure with symptoms developed annual immediately after exposure or within a relatively short time. CHRCANC FFFFCT: Arransa affects that are most likely to occur from repeated exposure over a long period of time. ESTO PELITLY: This estimated, time-verigited average, ex-

ESTO PELITIV. This estimated, time-weighted average, exposure limit, developed by using a formula provided by the ACGIH, pernams to airborne concentrations from the product as a whole. This value should serve as guide for providing safe workplace conditions to nearly all workers. HMIS CODES: Hazardous Material Identification System - a rating system developed by the National Paint and Coating Association for estimating the hazard potential of a chemical under normal workplace conditions. These risk estimates are indicated by a manuscical setting given in such of three hazard areas (Health/Flammability/Reactivity) ranging from a low of zero to a high of 4. A chronic lazard is indicated with a yes. Consult HMIS training guides for Personal Projection letter codes which indicate necessary protective equipment.

tection letter codes which trickette necessary protective equipment.

PRIMARY ROUTE OF ENTRY; The way one or more hazardous ingredients may enter the body and cause a generalized-systemic or specific-organ todo effect.

ING: Ingestion - A primary route of exposure through swallowing of material.

INH: Inhelation - A primary route of exposure through breathough of valors.

SKIN; A primary route of exposure through contact with

breathing of vapors.

the skin.

SECTION IV: SPECIAL PROTECTION INFORMATION

Where meniratory protection is recommended, use only MSHA and NIOSH approved respirators and dust masks. MSHA Mine Safety and Health Administration

NIOSH: National Institute for Occupational Safety and HEART.

SECTION V: PHYSICAL DATA

EVAPORATION RATE: it refers to the rate of change from the indust state to the vapor state at ambient temperature and pressure in comparison to a given substance (e.g. water). He have representing the acidity or alkalinity of an acqueous solution (Acidic pH = 1: Neutral pH = 7: Alkaline

PHRICENT VOLATILE: The percentage of the product (liquid or solid) that will evaporate at 2127 and ambient pressure. SCLUBILITY IN WATER, A description of the ability of the product to dissolve in water.

SECTION VIL REACTIVITY DATA

PACAMPOUS DECOMPOSITION, Breakdown products expected to be produced upon product decomposition or fire.

INCOMPATIBILITY; Material contact and conditions to avoid

to prevent hazardous reactions
POLYMERIZATION, indicates the tendency of the product's molecules to combine in a chemical reaction releasing ex-

cess pressure and heat.

STABILITY: Indicates the susceptibility of the product to spontaneously and dangerously decompose.

SECTION VIIL SPILL AND DISPOSAL PROCEDURES

RCRA WASTE NUS: KCHA (Resource Conservation and Re-covery Act) waste codes (40 CFR 261) applicable to the disposal of spilled or unusable product from the original container.

SECTION X: TRANSPORTATION DATA

CWA: Clean Water Act

CWA; Clean Water Act

Mo: Reportable Quantity - The amount of the specific ingredient that, when spilled to the ground and can enter a
storm sewer or natural watershed, must be reported to the
National Response Center, and other regulatory agencies
SUCA; room Substances Control Act - a tederal law requiring all commercial chemical substances to appear on an
inventory maintained by the EPA.

DISCLAIMER

All statements, technical information and recommendations contained herein are based on available scientific tests or data which we believe to be reliable. The accuracy and completeness of such data are not warranted or guaranteed. We cannot anticipate all conditions under which this scientific and the product of the insternation and our products, or the products of other manufacturers in combination with our products, may be used. Zep assumes no liability or responsibility for loss or damage resulting from the improper use or handling of our products, from incompatible predict combinations, or from the failure to follow instructions, warnings, and advisories in the product's label and Material Safety Data Sheet.

(Notice Revised 8/91)

MARTERIAL SAFERY DATAS HEE

AND SAFEHANDLING AND DISPOSAL INFORMATION

CLEAN ACROSS AMERICA AND THROUGHOUT THE WORLD"

ZEP MANUFACTURING COMPANY P.O. BOX 2015 ATLANTA, GEORGIA 30301

ISSUE DATE: 09/11/92 SUPERSEDES: 08/08/91

PRODUCT NGC 9342

12/30/93

al Dai

SECTION 1 - EMERGENCY CONTACTS

TELEPHONE:

(404) 352-1680

BETWEEN 8:00 AM - 5:00 PM (EST)

MEDICAL EMERGENCY: (404) 435-2973 (404) 432-2873

NON-OFFICE HOURS, WEEKENDS AND HOLIDAYS, PLEASE CALL YOUR

LOCAL POISON CONTROL

(404) 424-4789 (404) 319-6151 (404) 242-3561

TRANSPORTATION EMERGENCY:

(404) 922-0923

CHEMTREC:

TOLL-FREE - ALL CALLS RECORDED

1-800-424-9300 DISTRICT OF COLUMBIA: (202) 483-7616

ALL CALLS RECORDED

	LY PM)	EFFECTS (SEÉ REVERSE)	% IN
ESIGNATIONS 100 HOLD TO SEE SEA 17.5 STECS # KOG300000: OSHA PEL- 1000 ppm 10	00	IPIR FBL FBL	20-30 50-60

SECTION III - HEALTH HAZARD DATA

Special Note: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

Acute Effects of Overexposure:

DESIGNATIONS

Cirect contact with the spray mist can cause eye irritation such as stinging and burning. This product may cause slight skin irritation. No medical conditions are known to be aggravated by overexposure to this product or ingredients in this product.

Chronic Effects of Overexposure

Chronic effects from alcohol vapors are rare and would only result from prolonged and repeated contact, which is unlikely due to the packaging of this product. None or the ingredients are listed as carcinogens by IARC, NTP, or OSHA.

Est'd PEL/TLV. Not established

Primary Routes of Entry: Inh.

HMIS CODES: HEALTH 1;FLAM, 3;REACT, 1;PERS, PROTECT, A ;CHRONIC HAZ, NO

Skin: Wash contaminated skin thoroughly with soap or a mild detergent. Apply a skin cream with landlin. Get medical attention it irritation persists.

Eyes: Inhale: I

SECTION IV - SPECIAL PROTECTION INFORMATION

Protective Clothing:

Eye Protection:

No special measures are required.

Respiratory Protection: Ventilation:

No special measures are required. Avoid direct inhalation of concentrated spray mist and do not direct spray toward people.

No special measures are required.

SECTION V - PHYSICAL DATA

Specific Gravity

0.921

Vapor Pressure (mmHg): Evaporation Rate (BUTYL ACETATE =1):

Botting Polist (*F): 186 Percent Volatile by Volume (%): >95 Solubility in Water

Vapor Density (air=1): >

ph (use dilution of):

Solubility in Water: NEGLIGIBLE PH (concentrate): NA
Appearance and Odon VETY DRY SPRAY WITH A PLEASANT ORANGE SCENT

SECTION VI - FIRE AND EXPLOSION DATA

Flash Point (*F) (method used): 70F (on cond.) (TCC.)
Flammable Limits: LEL 1.9 UEL 9.5

Flammable Limits:

Water

Wear self-rentained positive pres, breathing apparatus. Direct water onto intact containers to prevent bursting.

Extinguishing Media: Special Fire Fighting: Unusual Fire Hazards:

MATERIAL SAFETY DATA SHEET PAGE 2 EP MANUFACTURING COMPANY SECTION VII - REACTIVITY DATA

(compatibility (avoid):

Stable Heat, open flame, spark, and oxidizing agents.

Will not occur.

Carbon dioxide, carbon monoxide, and other unidentified organic compounds.

SECTION VIII - SPILL AND DISPOSAL PROCEDURES

leading splay presontions in continue 4.8.9 rimins still clean-up. Large spills are unlikely due to packaging. Spill may be absorbed on an inert absorbent material (eg spills and placed in a suitable container for disposal. Week small thomughly with a detergent solution and mass were with water.

Faste Disposal Mathod:

azardous Decomposition:

roduct is consumed in use. Do not crush, puncture or incinerate spent containers. Large numbers of aerosol containers may require handling as a hazardous waste, but I most cause total hazardous waste quantities less than 220 lbs per month may allow disposal in a chemical or industrial waste landfill. Consult local, state and tederal gencies for the proper disposal method in your area.

ICRA Hazardous Waste Numbers: N/A

SECTION IX - SPECIAL PRECAUTIONS

recautions to be Taken When Handling and Storing:

to not store at temporatures above 120F, or in direct sunlight. On not puncture or incinerate container, Keep product out of eyes. Keep out of the reach of children.

SECTION X - TRANSPORTATION DATA

NOT Proper Shipping Name: CONSUMER COMMODITY, NOT Hazard Class: ORM-D

XXT I.D. Number: N/A

IPA TSCA Chemical Inventory: ALL INGREDIENTS ARE LISTED IPA CWA 40CFR Part 117 substance (RO in a single container): NONE

DOT Label/Placard: ORM-D

NOTICE

tank you for your interest in, and use of, Zep products, ap Manufacturing Co, is pleased to be of service to you by applying this Motorial Safety Data Sheat for your files. Zep lanufacturing is coocarned for your health and safety. Zep roducts can be used safely with proper protective equipment and proper handling practices consistent with label structions and the MSDS. Betwee using any Zep product, a sure to read the compliant label and the Manufacturing and the filescent Compliant. sure to read the complete label and the Material Safety

s a further word of caution. Zep wishes to advise that shows accidents have resulted from the misuse of emptied' containers. "Empty" containers retain residue iquid and/or vapori and can be dangerous. DO NOT presurize, cit, weld, braze, solder, drill, grind or expose such ontainers to heat, flame, or other sources of ignition; they say explode or develop harmful vapors and possibly cause they occur to death. Clean empty containers by triple thisting rith water or an appropriate solvent. Empty containers nust be sent to a drum reconditioner before reuse.

TERMS AND ABBREVIATIONS USED IN THE MEDS-BY SECTION ALPHABETICALLY:

JECTION IL HAZARDOUS INGREDIENTS

HCTION IF HAZARDOUS INCHEDIENTS
AND Caroinogen A chemical listed by the National Toxicology Program (NTP), the International Agency for Research in Cancer (IARC) or OSHA as a definite or possible human

ancer causing agent.

AS #; Chemical Abstract Services Registry Number - A iniversally accepted numbering system for chemical sub-

tences. 281; Combustible . At temperatures between 100°F and DOP chemical gives off enough vapor to ignite if a source of ignition is present as tested with a closed cup tester.
DNS: Central Nervous System depressant reduces the activity of the brain and spinal cond.

DOR: Conneive - Causes irraversible afterations in living

lissue (e.g. burns).

DESIGNATIONS: Chemical and common names of hazardous

ingredients. SR: Eye Irritant Only - Causes reversible reddening and/or

inflammation of eye tissues.

EXPOSURE LIMITS, The lines weighted average (TWA) air carrosona Limits, the lines weighted average (TWA) air borne concentration at which most workers can be exposed without any expected adverse effects. Primary sources include ACGIM TLV's, and OSHA PEL's (TWA, STEL and calling limits).

ACGIH: American Conference of Governmental Industrial

Hygienists. CEILING, The concentration that about not be exec

ciermo. The concentration the should not be exceeded in the workplace during any part of the working exposure. OSHA: Occupational Safety and Health Administration PEL: Permissible Exposure Limit. A set of time weighted average exposure values, established by OSHA, for a normal 8-hour day and a 40-hour work week.

PPM: Parts per million - unit of measure for exposure

(S) SKIN; Skin contact with substance can contribute to

STEL: Short Term Exposure Limit- Maximum concentration

tor a continuous 15-minute exposure period.

tor a continuous to-minute exposura period.
71.V; Threshold Limit Value - A set of time weighted average exposure limits, established by the ACGIH, for a normal 8-hour day and a 40-hour work week.
FBL: Flammable - At temperatures under 100°F, chemical

risc, Flammable - Al temperatures under 100°F, chemical gives off enough vapor to ignite if a source of ignition is present as tested with a closed cup tester. HAZARDOUS INGREDIENTS, Chemical substances determined to be potential health or physical hazards by the criteria established in the OSHA Hazard Communication Standard - 29 CFH 1810.1200.

HTX: Highly toxoc - the probable lethal dose for 70 kg (150 (b.) man and may be approximated as less than 6 toappone (2 tablespoors)

IRP: irritant - Causes reversible effects in living trasues (e.g.

inflammation) - primarily skin and eyes.

N/A: Not Applicable - Category is not appropriate for this

product. N/D; Not Determined - Insufficient information for a deter-

mination for this Item

RTROS#: Registry of Toxic Effects of Chemical Substances

- an unraviewed listing of published toxicology data on

chemical substances.

SARA: Superfund Amendments and Reauthorization Act-section 313 designates chemicals for possible reporting for the Toxics Release Inventory.

SEN; Sensitizer · Causes allergic reaction after repeated

TOX: Toxic - The probable lethal dose for a 70 kg (150 lb.) man is one ounce (2 tablespoons) or more.

SECTION III: HEALTH HAZARD DATA
ACUTE EFFECT: An adverse effect on the human body from
a single exposure with symptoms developing aimost immediately after exposure or within a relatively short time.
CHRONIC EFFECT: Adverse effects that are most likely to

cour from repeated exposure over a long period of time. SSTD PELITLY: This estimated, time-weighted average, ex-posure limit, developed by using a formula provided by the ACGIH, pertains to automic concentrations from the prod-

ACSIII, pertains to autorne concentrations from the product as a whole. This value should serve as guide for providing safe workplace conditions to hearly all workers.

HMZE CODES: Hasardous Material identification System acclaims to the National Paint and Coating Association for estimating the hazard potential of a chemical under normal workplace coaditions. These risk estimates are indicated by a numerical rating given in each of three hazard areas (Repth/Flammability/Reactivity) randing from Land of Aren to a high of 4 a chronic hazard is indicated. a low of zero to a high of 4. A chronic hazard is indicted with a yes. Concut HMIS training guides for Personal Protection letter codes which indicate necessary protective acuipment

equipment.

PRIMARY ROUTE OF ENTRY: The way one or more hazaroous ingredients may enter the body and cause a generalized-systemic or specific-organ toxic effect.

ING: Ingestion - A primary route of exposure through
exalinating of material.

INH: Inhalation - A primary route of exposure through

breathing of vapors.

SKIN; A primary route of exposure through contact with

the skim.

SECTION IV: SPECIAL PROTECTION INFORMATION

Where respiratory protection is recommended, use only MSHA and NIOSH approved respirators and dust masks.

MSHA: Mine Safety and Health Administration.

NIOSH: National Institute for Occupational Safety and Health.

SECTION V: PHYSICAL DATA

SECTION V: PHYSICAL DATA

EVAPORATION RATE: it refers to the rate of change from the liquid state to the vapor state at ambient temperature and pressure in comparison to a given substance (e.g. water).

PH. A value representing the acidity or alkalinity of an expensive solution (Acidic pH = 1; Neutral pH = 7; Alkaline pH = 14)

PERCENT VOLATILE: The percentage of the product (liquid or solid) that will evaporate at 212°F and ambient pressure.

SOLUBILITY IN WATER: A description of the ability of the product to dissolve in water.

product to dissolve in water.

SECTION VIE REACTIVITY DATA HAZARDOUS DECOMPOSITION; Breakdown products expect-ed to be produced upon product decomposition or five. INCOMPATIBILITY; Material contact and conditions to avoid

to prevent hazardous reactions.

POLYMERIZATION: Indicates the tendency of the product's molecules to combine in a chemical reaction releasing excess pressure and heat.

STABILITY: Indicates the susceptibility of the product to

spontaneously and dangerously decompose.

SECTION VIII SPILL AND DISPOSAL PROCEDURES
RCRR WASTE NOS: RCRA (Resource Conservation and Recovery Act) waste codes (40 CFR 261) applicable to the disposal of spitted or unusable product from the original

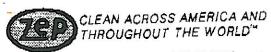
SECTION X: TRANSPORTATION DATA

CWA: Clean Water Act
RC: Reportable Quantity The amount of the specific ingredient that, when solled to the ground and can enter a storm sewer or hatteral watershed, must be reported to the Mational Response Center, and other regulatory agencies.
75CA: Tools Substances Control Act - a tederal law requirements. ing all commercial chemical substances to appear on an inventory maintained by the EPA.

DISCLAIMES

All statements, rechnical information and recommendations contained herein are based on available scientific tests of data which we believe to be reliable. The accuracy and completeness of such data are not warranted or guaran-teed. We cannot anticipate all conditions under which this information and our products, or the products of other manufacturers in combination with our products, may be manufacturers in compilation with our products may be used. Zep assumes no liability or responsibility for loss or damage resulting from the improper use or handling of our products, from mecompatible product combinations, or from the failure to follow instructions, warnings, and advisories in the product's label and Material Safety Data Sheet.

(Notice Revised 8/91)



ZEP MANUFACTURING COMPANY P.O. BOX 2015 ATLANTA, GEORGIA 30301

12/19/94 ISSUE DATE: 02/18/94 SUPERSEDES: 09/11/92

PHODUCT NO USE

Agrasal Deodards

SECTION I - EMERGENCY CONTACTS

TELEPHONE:

(404) 352-1680

BETWEEN 8:00 AM - 5:00 PM (EST)

MEDICAL EMERGENCY:

(404) 435-2973 404) 432-2873 NON-OFFICE HOURS, WEEKENDS AND HOLIDAYS, PLEASE CALL YOUR LOCAL POISON CONTROL

(404) 484-4780 (404) 319-6151 (404) 242-3561

TRANSPORTATION EMERGENCY:

(404) 922-0923

CHEMTREC:

TOLL-FREE - ALL CALLS RECORDED

800

1-800-424-9300 DISTRICT OF COLUMBIA: (202) 483-7616

ALL CALLS RECORDED

SECTION II - HAZARDOUS INGREDIENTS

EFFECTS (SEE REVERSE) (PPM) 1000

% IN 20-30 IRR FBL 50-60 FBL

"ETHANOL " ethyl alcohol; grain alcohol; CAS# 64-17-5; RTECS# KQ6300000; OSHA PEL- 1000 ppm

"BLEND OF [PROPANE: CAS# 74-98-6; RTFCS# TX2775000] 8 (n-BUTANE; CAS# 105-97-8; RTECS# EJ4200000) - OSHA PEL - 800 PPM

DESIGNATIONS

SECTION III - HEALTH HAZARD DATA

Special Note: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

Direct contact with the spray mist can cause eye irritation such as stinging and burning. This product may cause slight skin irritation. No medical conditions are known to be aggravated by overexposure to this product or ingredients in this product.

Chronic effects from alcohol vapors are rare and would only result from prolonged and repeated contact, which is unlikely due to the packaging of this product. None of the ingredients are listed as carcinogens by IARC, NTP, or OSHA.

EST'd PEL/TLY: Not established

Primary Routes of Entry inh

HMIS Codes: HEALTH 1;FLAM. 3;REACT. 1,PERS. PROTECT. A ;CHRONIC HAZ. NO

FIRST AID PROCEDURES:

Wash contaminated skin thoroughly with soap or a mild detergent. Apply a skin cream with lanclin. Get medical attention it irritation persists. Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once. Inhalo: Ingest: If swallowed, do not induce yomiting. If yomiting occurs, keep head below hip level. Get emergency medical attention immediately.

SECTION IV - SPECIAL PROTECTION INFORMATION

Protective Clothing:

Eye Protection:

No special measures are required.

espiratory Protection:

No special measures are required. Avoid direct inhalation of concentrated spray mist and do not direct spray toward people.

Ventilation:

No special measures are required.

SECTION V - PHYSICAL DATA

Boiling Point (*F): Percent Volatile by Volume (%): > 95
NEGLIGIBLE

0.921 Specific Gravity: Vapor Density (air=1): >1 NA

Vapor Pressure (mmHg): Evaporation Rate (BUTYL ACETATE = 1): pH (use dilution of):

Solubility in Water: NEGLIGIBLE pH (concentrate):
Appearance and Odor: A VERY DRY SPRAY WITH A PLEASANT PLACH SCENT.

SECTION VI - FIRE AND EXPLOSION DATA

Hash Point ("F) (method used). Nonflammable (CSMA)

Flammable Limits:

LEL 1.9 UEL 9.5

Extinguishing Media: Special Fire Fighting: Unusual Fire Hazards: Water

Wear self-contained positive pres, preathing apparatus. Direct water onto intact containers to prevent bursting.

EF MARU-ACTURING COMPANY MATERIAL SAFETY DATA SHEET PAGE 2

SECTION VII - REACTIVITY DATA

ability: competibility (avoid): symerization: izardous Decomposition: Stable

eat, open flame, spark and oxidizing acents.

Will not occur.

Carbon dioxide, carbon monoxide, and other unidentified organic compounds.

SECTION VIII - SPILL AND DISPOSAL PROCEDURES

eps to b :p-O-Zo aste Dis · Case Material is Released or Spilled:

tions in sections 4 & 9 during spill clear-up. Large spills are unlikely due to packaging. Spill may be absorbed on an inert absorbent material (eg. id in a suitable container for disposal. Wash area thoroughly with a detergent solution and those well with water.

DOT Label/Placard: ORM-D

ruse. Do not crush, puncture or incinerate spent containers. Large numbers of aerosol containers may require handling as a hazardous waste, but stardous waste quantities less than 220 bs per month may allow disposal in a chemical or industrial waste landfill. Consult local, state and faderal nduct is most sta

proper disposal method in your area. pencies for

CRA Nezardous Waste Numbers: N/A

SECTION IX - SPECIAL PRECAUTIONS

recontinues to be Taken When Handling and Storing: o not store at temperatures above 120F, or in direct sunlight. Do not puncture or incinerate container. Keep product out of eyes. Keep out of the reach of children

SECTION X - TRANSPORTATION DATA

OT Proper Shipping Name: CONSUMER COMMOUNTY.

OT Hazard Class: ORM-D

OT I.D. Number: N/A

PA TSCA Chemical Inventory: ALL INGREDIENTS ARE LISTED PA CWA 40CFR Part 117 substance (RQ in a single container) NONE

NOTICE

for a continuous 15-minute exposure period. TV: Threshold Limit Value - A set of time weighted average exposure limits, established by the ACGIH, for a normal 8-hour day and a 40-hour work week. FEL Fishmeable - At temperatures under 100°F, chemical cross of enough vapor to ignite if a source of ignition is present as tested with a closed out tester. HAZAPDOUS INGREDIENTS: Chemical substances determined to potential health or physical hazards by the ter a continuous 15-minute exposure period

mined to be potential health or physical hazards by the criterial relabilished in the OCHA Hazard Communication Standard - 29 CFR 1910.1200

Standard - 29 CFK 1910/1200
HTX: Highly toxic - the probable lethal dose for 70 kg (150 lb.) man and may be approximated as less than 6 teaspoons (2 tablespoons).
HRR: Irritant - Causes reversible effects in living tissues (e.g. inflammation) - primarily skin and eyes.
N/A Not Applicable - Category to not appropriate for this product.

product. N/D: Not Determined - Insufficient information for a deter-

chemical substances.

SAPA: Superlund Amendments and Reauthorization Act -Section 313 designates chemicals for possible reporting for the Toxics Release Inventory
SEN: Sensitizer - Causes allergic reaction after repeated

TOX; Toxic - The probable lethal dose for a 70 kg (150 ib.) man is one ounce (2 tablespoons) or more.

SECTION III: HEALTH HAZARD DATA

ACUTE EFFECT: An adverse effect on the human body from a single exposure with symptoms developing almost immediately offer exposure or within a relatively short time. CHRON: EFFECT: Adverse effects that are most likely to

CHRON: EFFECT: Adverse effects that are most likely to occur from repeated exposure over a long period of time.
ESTD FELTU.Y. This estimated, time-weighted avarage, or posure limit, developed by using a formula provided by the ACGH, pertains to airborne concentrations from the product as a whole. This value should serve as guide for providing sate workplace conditions to nearly all workers.

HMIS CODES: Hazardous Material Identification System - a rating system developed by the National Point and Continuations.

HMIS CODES: Razardous material restriction by an incident and Coating rating system developed by the National Paint and Coating Association for estimating the hazard potential of a chemical under normal workplace conditions. These risk estimates cal under normal workplace conditions. These risk estimates are indicated by a numerical rating given in each of three hazard areas (Health/Flammability/Reactivity) ranging from a low of zero to a high of 4. A chronic hazard is indicated with a yes. Consult HMS5 training guides for Personal Protection letter codes which indicate necessary protective

equipment.

PRIMARY ROUTE OF CNTTY: The way one or more hazardous ingredients may enter the body and cause a generalardous ingredients may enter the body and cause a generalized-systemic or specific-organ toxic effect

ING: Ingestion - A primary route of exposure through swallowing of material.

INH: Inhalation - A primary route of exposure through breathing of vapors.

3/GN; A primary route of exposure through contact with

the skin.

SECTION IV: SPECIAL PROTECTION INFORMATION

Where respiratory protection is recommended, use only MSHA and NICSH approved respirators and dust masks. MSHA; Mine Safety and Health Administration NIOSH. National Institute for Occupational Safety and Health.

SECTION V: PHYSICAL DATA

VAPORATION RATE, it refers to the rate of change from the liquid state to the vapor state at ambient temperature and pressure in comparison to a given substance (e.g. water), p4: A value representing the acidity or alkalinity of an aqueous solution (Acidic pH = 1; Neutral pH = 7; Alkaline

PERCENT VOLATILE: The percentage of the product (liquid or solid) that will evaporate at 2127 and ambient pressure. SOLUBILITY IN WATER, A description of the ability of the product to dissolve in water.

SECTION VIE REACTIVITY DATA

HAZARDOUS DECOMPOSITION; Breakdown products expect ed to be produced upon product decomposition or fire.

INCOMPATIBITITY: Material contact and conditions to avoid

prevent nazardous reactions. POLYMERIZATION; indicates the tendency of the product's molecules to combine in a chemical reaction releasing ex-cess pressure and heat.

STABILITY: Indicates the susceptibility of the product to spontaneously and dangerously decompose

SECTION VIII: SPILL AND DISPOSAL PROCEDURES
RCFA WASTE NOS: RCRA (Resource Conservation and Recovery Act; waste codes (40 CFR 261) applicable to the disposal of spilled or uninsable product from the original

SECTION X: TRANSPORTATION DATA

CWA: Clean Water Art RO. Reportable Quantity - The amount of the specific ingre dient that, when spilled to the ground and can enter a storm sewer or natural watershed, must be reported to the National Response Center, and other regulatory summies. TSCA: Toxic Substances Control Act - a lederal law requiring all commercial chemical substances to appear on an inventory mainteined by the EPA.

DISCLAIMER

All statements, technical information and recommendations contained herein are traced on available accentific tests or data which we believe to be reliable. The accuracy and completeness of such data are not warranted or guaran completeness of such cate are not warning or read. We cannot anticipate all conditions under which this information and our products or the products of other manufacturers in combination with our products, may be used. Zep assumes no liability or responsibility for loss or damage resulting from the improper use or handling of our products, from incompatible product combinations, or from the failure to follow instructions, warrangs, and advisories in the product's label and Material Safety Data Sheet.

ank you for your interest in, and use of, Zap products in Manufacturing Co. is pleased to be of service to you by pplying this Material Safety Data Sheet for your files. Zap antifecturing is concerned for your health and safety. Zap oducts can be used safety with proper protective equip ent and proper handling practices condition with label structions and the MSDS. Before using any Zep product, sure to re. Secomplete label and the Material Safety Ma Sheet

5 a further i of caution. Zep wishes to advise that inous acci have resulted from the misuse of imptied" co lers, "Empty" containers retain residue quid and/or va.c/r and can be dangerous. DO NOT presentes, cut, weld, braze, solder, drill, grind or expose such ntake, cut, went brack, track, or other sources of ignition, they averaged or develop harmful vapore and possibly datase jury or de. lean empty containers by tripe rinsing ith water / appropriate solvent. Empty containers rrum reconditioner before reuse. ust be sent

TERMS AIL ABBREVIATIONS SED IN THE MSDS:

ECTION It: HAZARDOUS INGREDIENTS
AR: Carcinogen - A chemical listed by the National Toxicology Program (NTP), the International Agency for Research in Canger (IARC) or OSHA as a definite or possible human appearance.

ancer causing agent.

As #: Chemical Abstract Services Registry Number niversally accepted numbering system for chemical sub-

181. Combustible - At temperatures between 100°F and 00°F chemical gives off enough vapor to ignite if a source f ignition is present as tested with a closed cup tester.
West Camiral Nervous System depressent reduces the solic-

y of the brain and spinal cord. :OR: Corrosive - Causes irreversible attenutions in fiving

issue (e.g. burns). SESIGNATIONS; Chemical and common names of hazardous IR: Eye Irritant Only - Causes reversible reddening and/or

inflammation of eye fissues.

XPOSURE UMITS: The time weighted average (TWA) airtome concentration at which most workers can be exposed
without any expected adverse effects. Primary sources intude ACGIH TLVs, and OSHA PEL's (TWA, STEL and ceiting

ACGIH: American Conference of Governmental Industrial

Hygienists. CEILING: The concentration that should not be exceeded CELLING: The concentration that should not be exceeded in the working exposure.

OSHA; Occupational Salety and Health Administration

PEL Permissible Exposure Limit- A set of time weighted. average exposure values, established by OSHA, a normal 8-hour day and a 60-hour work week.

PPM: Parts per million - unit of measure for exposure

(S) SKIN; Skin contact with substance can contribute to

overall exposure. STEL: Short Term Exposure Limit- Maximum concentration

(Notice Revised 6/91)

ANIL SATE HANDUNG AND DISPOSAL INFORMATION

CLEAN ACROSS AMERICA AND THROUGHOUT THE WORLD"

ZEP MANUFACTURING COMPANY P.O. BOX 2015 ATLANTA, GEORGIA 30301

ISSUE DATE: 09/11/92 SUPERSEDES: 07/30/91

PRODUCT NO. 0341

2/15/94

Acrosol Cases

SECTION I - EMERGENCY CONTACTS

TELEPHONE:

(404) 352-1680

BETWEEN 8:00 AM - 5:00 PM (EST)

MEDICAL EMERGENCY:

(404) 435-2973 (404) 432-2873

NON-OFFICE HOURS, WEEKENDS AND HOLIDAYS, PLEASE CALL YOUR

LOCAL POISON CONTROL

(404) 424-4789 (404) 319-6151 (404) 242-3561

TRANSPORTATION EMERGENCY: (404) 922-0923

TOLL-FREE - ALL CALLS RECORDED

CHEMTREC: 1-800-424-9300 DISTRICT OF COLUMBIA: (202) 483-7616

ALL CALLS RECORDED

SECTION II · HAZARDOUS INGREDIENTS

% IN (PPM) (SEE REVERSE) 1000

* ETHANOL ** ethyl sicohol; grain sicohol; CAS# 64-17-5, RTECS# KO6300000; OSHA PEL- 1000 ppm ** BLEND OF [PROPANE; CAS# 74-98-6; RTECS# TXZ775000] & [n-BUTANE; CAS# 106-97-8; RTECS# E.I4200000] ** OSHA PEL - 800 PPM DESIGNATIONS

800

20-30 IRR FBL 50-60 FBL

SECTION III - HEALTH HAZARD DATA

Special Note: MSDS data pertains to the product as disponded from the container. Adverse health effects would not be expected under recommended conditions of use (diluted) so long as prescribed safety precautions are practiced.

Direct contact with the spray mist can cause eye imitation such as stinging and burning. This product may usue slight skin imitation. No medical conditions are known to be aggravated by overexposure to this product or ingredients in this product.

Chronic effects from alcohol vapors are rare and would only result from prolonged and repeated contact, which is unlikely due to the peckeging of this product. None or the ingredients are listed as carcinogens by IARC, NTP, or OSHA.

Est'd PEL/TLV: Not established

Primary Routes of Entry: Inh.

HMIS Codes: HEALTH 1;FLAM. 3;REACT. 1;PERS. PROTECT. A ;CHRONIC HAZ. NO

Stain: Wash contaminated skin thoroughly with soap or a mild detergent. Apply a skin cream with languin. Out medical attention if irritation persists. Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids. Get medical attention at once. Inhale: Move exposed person to fresh air. If irritation persists, get medical attention promptly. It swallowed, do not induce vomiting occurs, keep head below hip level. Get emergency medical attention immediately.

SECTION IV - SPECIAL PROTECTION INFORMATION

Protective Clottung:

No special measures are required.

Eye Protection: Respiratory Protection: Vendiation:

No special measures are required. Avoid direct inhalation of concentrated spray mist and do not direct spray toward people.

No special measures are required. SECTION V - PHYSICAL DATA

Builling Point ("F): 165
Percent Volatile by Volume (%): >95

Specific Gravity: 0 421 Vapor Pressure (mmHq): Evaporation Rate (BUTYL ACETATE = 1):

Vapor Density (air=1): >1 N/A

pii (use dilution of):

1

Solubility in Water: NEGLIGIBLE pH (concentrate):
Appearance and Odor: VERY DRY SPRAY WITH A PI FASANT ORANGE SCENT

SECTION VI - FIRE AND EXPLOSION DATA

Flash Point (*F) (method usad): 70F (on conc.) (TCC)
Flammable Limits: LEI, 1.9 UEL 8.5
Extinguishing Media: Water
Special Fire Fighting: Wear self-contained points and Fire Hazards: Direct water onto inter-

Wear self-contained positive pres, breathing apparatus, Direct water onto intact containers to prevent burshing.

ZEF PIFO. CU. SEP OF SO 14.71 MO.004 1.00703

SECTION VII - REACTIVITY DATA

shifty: compatibility (avoid): lymerization: Enrique Decomposition: Heat, open flame, spark, and oxidizing agents.

Will not occur.

Carbon dioxide, carbon monocide, and other unidentified organic compounds.

SECTION VIII - SPILL AND DISPOSAL PROCEDURES

eps to be Takon in Case Material is Released or Spilled:
serve safety precautions in sections 4 & 9 during spill clean-up. Large spills are unlikely due to packaging. Spill may be absorbed on an inert absorbent material (ec. p-O-Zorb), and placed in a suitable container for disposal. Wash area thoroughly with a detergent solution and rinse well with water.

arts Disposal Method:

oduct is consumed in use. Do not crush, puncture or incinerate spent containers. Large numbers of scrosol containers may require handling as a hazardrus waste, but oduct is consumed in use. Do not crush, puncture or incinerate spent containers. Large numbers of scrosol containers may require handling as a hazardrus waste, but oduct is consumed in use. Do not crush, puncture or incinerate spent containers. Large numbers of scrosol containers may require handling as a hazardrus waste, but office is consumed in use. Do not crush, puncture or incinerate spent containers. Large numbers of scrosol containers may require handling as a hazardrus waste, but office is consumed in use. pencies for the proper disposal method in your area.

CRA Hazardous Waste Numbers: N/A

SECTION IX - SPECIAL PRECAUTIONS

o not store at temperatures above 120F, or in direct sunlight. Do not puncture or incinerate container. Keep product out of eyes. Keep out of the reach of children.

SECTION X - TRANSPORTATION DATA

OT Proper Shipping Name: CONSUMER COMMODITY, OT Hazard Class; ORM-D

OT LD. Number: N/A

PA TSCA Chemical Inventory: ALL INGREDIENTS ARE LISTED PA CWA 40CFR Part 117 substance (RQ in a single container) : NONE

ank you for your interest in, and the of. Zep products, a Manufacturing Co. is pleased to be of service to you by p Manufacturing Co. is pleased to be observed by your polying this Material Safety Data Sheet for your Illes. Zep autiacturing is concerned for your health and safety. Zep oducts can be used the practices consistent with label structions and the M. Before using any Zep product. I sum to read the complete label and the Material Safety

s a further word of caution. Zep wishes to advise that s a surrang work to the misuse of minute accidents have resulted from the misuse of minuted containers. "Empty" containers retain residue quid and/or vapor) and can be dangerous. DO NOT presented to the containers of the contain quid and/or vapor) and can be dangerous. DO NOT pres-rize, cut, weld, braze, solder, drill, grind or expose such natiners to heat, flame, or other sources of ignition; they ay explode or develop harmful vapors and possibly cause jury or death. Clean empty containers by triple rinsing th water or an someoprist's solvent. Empty containers just be sent to a drem reconditioner before reuse.

TERMS AND ABBREVIATIONS USED IN THE MSDS: BY SECTION ALPHABETICALLY:

ECTION IL HAZARDOUS INGREDIENTS

AR: Carcinogen - A chemical listed by the National Toxicol-cy Program (NTP), the International Agency for Research a Cancer (IARC) or OSHA as a definite or possible human

ancer causing agent.

AS #: Chemical Abstract Services Registry Number - A
privenestly accepted flumbering system for chemical subtances.

nances.

EL: Combustible - At temperatures between 100°F and 50°F chemical gives off enough vapor to ignite if a pource of ignition is present as tested with a closed cup tester.

INS: Central Nervous System depressant reduces the activities the interest the property of the contract of

ty of the brain and spinal cord.

2015 Corrosive - Causoc irreversible alterations in living issue (e.g. burns).

2055 CANATONS: Chemical and common names of hazardous.

Eye Irritant Only - Causes reversible readening and/or

inflammation of eye tissues.

DKPOSURE UMITS: The time weighted average (TWA) alreaded concentration at which must workers can be exposed without any expected adverse effects. Primary sources include ACGIH TLV's, and GSHA PEL's (TWA, STEL and ceiling

ilmits).

ACGH; American Conference of Governmental Industrial

CELING: The concentration that should not be exceeded CELLINA, THE CONCENTRATION THAT SHOULD HOT DE EXCESSOR IN the working any part of the working exposure.

OSHA: Occupational Safety and Health Administration.

PEL: Permissible Exposure Limit- A set of time weighted average exposure vatues, established by OSHA, for a normal 8-hour day and a 40-hour work work.

PMM: Parts per million - unit of example.

PPM: Parts per million - unit of measure for exposure

(C) Skin contact with substance can contribute to cverall exposure.

STEL Short Term Exposure Limit- Maximum concentration

tor a continuous 15-minute exposure period.
71V: Threshold Limit value - A sat of time weighted everage exposure offs, established by the ACGIH, for a normal 8-hou:

and a 40-hour work week.

NOTICE

DOT Label/Placerd: ORM-D

normal 8-hou: and a 40-hour work week.

Fig. Flammable temperatures under 100°F, chemical gives off enough report to lightle if a source of ignition is present as tested with a closed cup tester.

HAZARDOUS INGREDIENTS: Chemical substances determined to be potential health or physical hezards by the criteria established in the OSHA Hazard Communication Standard -29 CFR 1910.1200

HTX: Highly took - the mobable lethal dose for 70 kg (150 lb) man and may be approximated as less than 6 tesspoons (2 tablespoons).

Tesepoons (2 tablespoons).

Teaspoons to issues reversible effects in living tissues (e.g. IRA) Irritant - Causes reversible effects in living tissues (e.g. Inflammation) - primarily skin and eyes.

N/A: Not Applicable - Category is not appropriate for this

product. N/D; Not Determined - insufficient information for a deter-

mination for this item.

RTECS #: Registry of Toxic Effects of Chemical Substances

an unreviewed listing of published toxicology data on

crismical substances.

SARA: Superfund Amendments and Resulthorization Act Section 313 designates chemicals for possible reporting for
the Torice Releases inventory.

SEN: Sensitizer - Causes allergic reaction after repeated cal substances.

TOX; Toxic - The probable lethal dose for a 70 kg (150 lb.) man is one punce (2 Lebko-poons) or more.

SECTION IIL HEALTH HAZARD DATA

ACUTE EFFECT: Ar. adverse effect on the human body from a single valuation with symptoms developing almost immediately after exposure or within a relatively short time. CHRONIC EFFECT: Adverse effects that are most likely to

CHRONIC EFFECT: Adverse effects that are most likely to occur from repeated exposure over a long period of time. ESTD PELITAY: This estimated, time-weighted average, exposure limit, developed by using a formula provided by the ACGIH, pertains to airborne concentrations from the product see whole. This value should serve as guide for prouding safe workplace conditions to nearly all workers.

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equipment.

PRIMARY ROUTE OF ENTRY; The way one or more haz-

breathing of Vapors SKIR: A primary route of exposure through contact with

the skin.

SECTION IV: SPECIAL PROTECTION INFORMATION

Where respiratory protection is recommended, use only MSHA and NICSH approved respirators and dust masks. MSHA; Mine Safety and Health Administration NICSH, National Institute for Occupational Safety and

SECTION V: PHYSICAL DATA

EVAPORATION RATE; it refers to the rate of change from the liquid state to the vapor state at ambient temperature and pressure in comparison to a given substance (e.g. water). pH: A value representing the acidity or alkalimity of an aqueous solution (Acidic pH = 1; Neutral pH = 7; Alkaline at 1 = 14.

ph = 14)

PERCENT VOLATILE: The percentage of the product (liquid or solid) that will eveporate at 212°F and ambient pressure. SOLUBILITY IN WATER: A description of the ability of the product to dissolve in water.

SECTION VIL: REACTIVITY DATA

HAZARDOUS DECOMPOSITION; Breakdown products expectsquead upon product decomposition or life. ed to be produced upon product decomposition or life-INCOMPATIBILITY; Material contact and conditions to avoid

to prevent hazardous reactions.

POLYMERIZATION: Indicates the tendency of the product's molecules to combine in a chemical reaction releasing excess pressure and heat.

STABILITY; indicates the susceptibility of the product to apontaneously and dangerously decompanies.

SECTION VIII: SPILL AND DISPOSAL PROCEDURES
RCRA WASTE NOS: RCRA (Resource Conservation and Receivery Act) waste codes (40 CFR 251) applicable to the
disposal of spilled or unusable product from the original container

SECTION X: TRANSPORTATION DATA

CWA: Clean Water Act

RO: Reportable Quantity . The amount of the specific ingre rive reportative quantity - the amount of the specific tegre-dient that, when spilled to the ground and can enter a storm sewer or natural watershed, must be reported to the National Response Center, and other regulatory agencies. TSCA: Toole Substances Control Act - a federal law requir-ing all commercial chemical substances to appear on an inventory maintained by the EPA. inventory maintained by the EPA.

DISCLAIMER

All statements, technical information and recommendations contained herein are based on available scientific tests or data which we believe to be reliable. The accuracy and data which we believe to be reliable. The accuracy and completeness of such data are not warranted or gueranteed. We cannot anticipate all conditions under which this information and our products, or the products of other manufacturers in combination with our products, may be used. Zep assumes no liability or responsibility for time of damage resulting from the improper use or handling of our products, from incompatible product combinations, or from the failure to taken instructions, warnings, and advisories in the product's label and Material Safety Data Sheet.

(Notice Revised \$/91)