



chemists helping chemists in research & industry

aldrich chemical co.

P.O. Box 355, Milwaukee, Wisconsin 53201 USA

Telephone: (414) 273-3850
TWX: (910) 262-3052 Aldrichem MI
Telex: 26 843 Aldrich MI
FAX: (414) 273-4979

ATTN: SAFETY DIRECTOR
CONOCO INC
REFINERY WAREHOUSE
PO BOX 37
OLD SPANISH TRAIL
WESTLAKE LA 70669

GS712

DATE: 09/28/91
CUST#: 923153
PO#: 316-LPA-265179

M A T E R I A L S A F E T Y D A T A S H E E T

PAGE 1

IDENTIFICATION

PRODUCT #: 25748-6
CAS #: 563-46-2
MF: C5H10

NAME: 2-METHYL-1-BUTENE, 99%

SYNONYMS

ISOPENTENE (DOT) * 2-METHYL-1-BUTENE * 2-METHYL-1-BUTENE (DOT) * UN
2371 (DOT) * UN 2459 (DOT) *

TOXICITY HAZARDS

RTECS NO: E47550000

1-BUTENE, 2-METHYL-
REVIEWS, STANDARDS, AND REGULATIONS

NOHS 1974: H2D 82985; NIS 4; TNE 92; NOS 4; TNE 3894

EPA TSCA CHEMICAL INVENTORY, 1989

EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, APRIL 1990

ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS)
DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

HEALTH HAZARD DATA

ACUTE EFFECTS

MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION.

MAY CAUSE IRRITATION.

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND
TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

FIRST AID

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH COPIOUS
AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED
CLOTHING AND SHOES.

IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL
RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.

CALL A PHYSICIAN.

WASH CONTAMINATED CLOTHING BEFORE REUSE.

PHYSICAL DATA

BOILING PT: 31 C

MELTING PT: -137 C

SPECIFIC GRAVITY: 0.650

VAPOR PRESSURE: 951 MM @ 37.7 C

APPEARANCE AND ODOR

VOLATILE COLORLESS LIQUID

FIRE AND EXPLOSION HAZARD DATA

FLASHPOINT: <-30

LOWER EXPLOSION LEVEL: 1.4%

EXTINGUISHING MEDIA

CARBON DIOXIDE, DRY CHEMICAL POWDER, ALCOHOL OR POLYMER FOAM.

SAL 000009558

Belgium/Holland
Aldrich Chemie
Boulevard Lambertus 140 D6
80 Lambertuslaan 140 D6
B-1030 Brussels/Bruxelles
Telephone
Belgium 114747
Holland 114747

France
Aldrich-Chemie S.r.l.
27, Fosse des Trites
F-67000 Strasbourg
Telephone 84327010
Telex 890078 Aldrich F
FAX 86751283

Italy
Aldrich Chimica S.r.l.
Via Pietro Toselli 4
20127 Milano
Telephone 022613668
Telex 330862 Aldrich I
FAX 022856301

Japan
Aldrich Kasei
Kiyoko Bldg. Shinjuku
10 Kanda-Mitsuricho
Chiyoda-Ku, Tokyo
Telephone 032580155
Telex 032580157
FAX 032580157

United Kingdom
Aldrich Chemicals Ltd
Aldrich Chemicals Ltd
The Old Brickyard, New Road
Gillingham, Dorset SP7 4LL
Telephone 0147822211
Telex 22189 SAQS-E
FAX 0147823779

United States
Aldrich Chemical Co. Ltd
The Old Brickyard, New Road
Gillingham, Dorset SP7 4LL
Telephone 0147822211
Telex 22189 SAQS-E
FAX 0147823779

West Germany
Aldrich-Chemie GmbH & Co. KG
D-7924 Steinheim
Telephone 1329810
Telex 714838 Aldrich D
FAX 0732987139/239

CONTINUED ON NEXT PAGE



chemists helping chemists in research & industry

aldrich chemical co.

P.O. Box 355, Milwaukee, Wisconsin 53201 USA

Telephone: (414) 273-3850
TWX: (910) 262-3052 Aldrich MI
Telex: 26 843 Aldrich MI
FAX: (414) 273-4979

GS712

M A T E R I A L S A F E T Y D A T A S H E E T

PAGE 2

CUST#: 923153
PO#: 316-LPA-265179

PRODUCT #: 25748-6
CAS #: 563-46-2
MF: C5H10

NAME: 2-METHYL-1-BUTENE, 99%

----- FIRE AND EXPLOSION HAZARD DATA -----

WATER MAY BE EFFECTIVE FOR COOLING, BUT MAY NOT EFFECT EXTINGUISHMENT.
SPECIAL FIREFIGHTING PROCEDURES
WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.
EXTREMELY FLAMMABLE.
USE WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS.
UNUSUAL FIRE AND EXPLOSION HAZARDS
VAPOR MAY TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND FLASH BACK.
CONTAINER EXPLOSION MAY OCCUR UNDER FIRE CONDITIONS.
FORMS EXPLOSIVE MIXTURES IN AIR.

----- REACTIVITY DATA -----

INCOMPATIBILITIES
OXIDIZING AGENTS
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
TOXIC FUMES OF:
CARBON MONOXIDE, CARBON DIOXIDE

----- SPILL OR LEAK PROCEDURES -----

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED
EVACUATE AREA.
SHUT OFF ALL SOURCES OF IGNITION.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES.
COVER WITH AN ACTIVATED CARBON ADSORBENT, TAKE UP AND PLACE IN CLOSED CONTAINERS. TRANSPORT OUTDOORS.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.
WASTE DISPOSAL METHOD
BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS MATERIAL IS HIGHLY FLAMMABLE.
OBSERVE ALL FEDERAL, STATE, AND LOCAL LAWS.

----- PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE -----

WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.
MECHANICAL EXHAUST REQUIRED.
SAFETY SHOWER AND EYE BATH.
USE NONSPARKING TOOLS.
DO NOT BREATHE VAPOR.
AVOID CONTACT WITH EYES, SKIN AND CLOTHING.
WASH THOROUGHLY AFTER HANDLING.
KEEP TIGHTLY CLOSED.

CONTINUED ON NEXT PAGE SAL 000009559

Belgium/Netherlands
Aldrich Chemie
Boulevard Lambertoni 140 b6
Bd. Lambertoni 140 b6
B-1030 Brussels/Brussel
Telephone 114747
Telex 980224748
Fax 2731 4979

France
Aldrich-Chimie S.r.l.
27, Fosse des Thiers
F-67000 Strasbourg
Telephone 88327010
Telex 890078 Aldrich F
Fax 88751283

Italy
Aldrich Chimica S.r.l.
Via Pietro Toselli, 4
20127 Milano
Telephone 022813688
Telex 330862 Aldrich I
Fax 022896301

Japan
Aldrich Japan
Kyodo Bldg. Shinkawa
10, Kanda-Midjicho
Chiyoda-Ku, Tokyo
Telephone 032580155
Fax 032580157

Spain
Aldrich Quimica
Apt. de Correo 181
28100 Alcobendas (Madrid)
Telephone 916639877
Telex 22189 SAQS-E
Fax 916638084

United Kingdom
Aldrich Chemical Co., Ltd.
The Old Brickyard, New Road
Gillingham, Dorset SP8 4JL
Telephone 0747822211
Telex 417238 Aldrich G
Fax 0747823778

West Germany
Aldrich-Chemie GmbH & Co. KG
D-7574 Steinheim
Telephone 7329870
Telex 714838 Aldrich D
Fax 0732987139/238



chemists helping chemists in research & industry

aldrich chemical co.

P.O. Box 355, Milwaukee, Wisconsin 53201 USA

Telephone: (414) 273-3850
TWX: (910) 262-3052 Aldrichem MI
Telex: 26 843 Aldrich MI
FAX: (414) 273-4979

GS712

M A T E R I A L S A F E T Y D A T A S H E E T

PAGE 3

CUST#: 923153
PO#: 316-LPA-265179

PRODUCT #: 25743-6
CAS #: 563-45-2
MF: C5H10

NAME: 2-METHYL-1-BUTENE, 99%

--- PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE ---

KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME.
REFRIGERATE.

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. ALDRICH SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT. SEE REVERSE SIDE OF INVOICE OR PACKING SLIP FOR ADDITIONAL TERMS AND CONDITIONS OF SALE.

COPYRIGHT 1990 ALDRICH CHEMICAL CO., INC.
LICENSE GRANTED TO MAKE UNLIMITED COPIES FOR INTERNAL USE ONLY.

SAL 000009560

Belgium/Holland
Aldrich Chemie
Boulevard Lambertoni 140 b6
B-1030 Lambertoni
B-1030 Bruxelles-Brussel
Telephone
Belgium 114747
Holland 060224748
Telex 714836 Aldrich

France
Aldrich-Chemie S.r.l.
27, Fosse des Treize
F-67000 Strasbourg
Telephone 88327010
Telex 890075 Aldrich F
FAX 88751283

Italy
Aldrich Chimica S.r.l.
Via Pietro Toselli, 4
20127 Milano
Telephone 022613688
Telex 330862 Aldrich I
FAX 022896301

Japan
Aldrich Japan
Kyoto Bldg. Shinkanda
10 Kanda-Mikuracho
Chiyoda-Ku, Tokyo
Telephone 032580155
FAX 032580157

Spain
Aldrich Quimica
Apt. de Corrales 181
28100 Alcobendas (Madrid)
Telephone 916639877
Telex 22189 SAQS-E
FAX 916638084

United Kingdom
Aldrich Chemical Co., Ltd.
The Old Brickyard, New Road
Gillingham, Dorset SP8 4JL
Telephone 0147822211
Telex 417238 Aldrich G
FAX 0147823779

West Germany
Aldrich-Chemie GmbH & Co. KG
D-7924 Starnheim
Telephone 7329870
Telex 714836 Aldrich
FAX 0732987139/239



chemists helping chemists in research & industry

aldrich chemical co.

P.O. Box 355, Milwaukee, Wisconsin 53201 USA

Telephone: (414) 273-3850
TWX: (910) 262-3052 Aldrichem MI
Telex: 26 843 Aldrich MI
FAX: (414) 273-4979

ATTN: SAFETY DIRECTOR
CONOCO INC
REFINERY WAREHOUSE
PO BOX 37
OLD SPANISH TRAIL
WESTLAKE LA 70669

GS713

DATE: 09/28/90
CUST#: 923153
PO#: 316-LPA-265179

M A T E R I A L S A F E T Y D A T A S H E E T

PAGE 1

IDENTIFICATION

PRODUCT #: 30421-2
CAS #: 513-35-9
MF: C5H10

NAME: 2-METHYL-2-BUTENE, 98%

SYNONYMS

AMYLENE * ETHYLENE, TRIMETHYL- * BETA-ISO-AMYLENE * ISOPENTENE (DOT) *
2-METHYL-2-BUTENE * METHYL BUTENE (DOT) * 2-METHYL-2-BUTENE (DOT) *
TRIMETHYLETHYLENE * UN 2371 (DOT) * UN 2460 (DOT) *

TOXICITY HAZARDS

RTECS NO: E47650000

2-BUTENE, 2-METHYL-
LEWS, STANDARDS, AND REGULATIONS
NOHS 1974: HZD 82987; NIS 5; TNF 99; NOS 5; TNE 3993
EPA TSCA CHEMICAL INVENTORY, 1989
EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, APRIL 1990

ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS)
DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

HEALTH HAZARD DATA

ACUTE EFFECTS

HARMFUL IF INHALED OR SWALLOWED.
SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING SENSATION, COUGHING,
WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE, NAUSEA AND
VOMITING.
VAPOR OR MIST IS IRRITATING TO THE EYES, MUCOUS MEMBRANES AND UPPER
RESPIRATORY TRACT.

FIRST AID

IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS
AMOUNTS OF WATER.
CONTAMINATION OF THE EYES SHOULD BE TREATED BY IMMEDIATE AND PROLONGED
IRRIGATION WITH COPIOUS AMOUNTS OF WATER.
ASSURE ADEQUATE FLUSHING OF THE EYES BY SEPARATING THE EYELIDS
WITH FINGERS.
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL
RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.
CALL A PHYSICIAN.
REMOVE AND WASH CONTAMINATED CLOTHING PROMPTLY.

PHYSICAL DATA

BOILING PT: 35 C TO 38 C
MELTING PT: -134 C
SPECIFIC GRAVITY: 0.662
VAPOR DENSITY: 2.4
VAPOR PRESSURE: 724 MM @ 37.8 C
APPEARANCE AND ODOR
COLORLESS LIQUID

SAL 000009561

CONTINUED ON NEXT PAGE

Belgium/Holland
Aldrich Chemie
Boulevard Lambertini 140 bis
Bd Lambertini 140 bis
B-1030 Bruxelles/Brussel
Telephone
Belgium 114747
Netherlands 260274747

France
Aldrich-Chemie S.A.R.L.
27, Fosse des Treilles
F-67000 Strasbourg
Telephone 88327010
Telex 880076 Aldrich F
FAX 88751263

Italy
Aldrich-Chemie S.r.l.
Via Pietro Toletti 4
20127 Milano
Telephone 022613689
Telex 330642 Aldrich I
FAX 022896301

Japan
Aldrich Chemical Co., Ltd.
Kyodo Bldg. Shinjuku
10 Kanda-Mitsukawa
Chiyoda-Ku, Tokyo
Telephone 032560155
FAX 032560157

Spain
Aldrich Chemical Co., Ltd.
Apt. de Correo 181
28100 Alcobendas (Madrid)
Telephone 915629877
Telex 22189 SAOS-E
FAX 916638084

United Kingdom
Aldrich Chemical Co., Ltd.
The Old Brickyard New Road
Gillingham Dorset SP8 4JL
Telephone 0147822211
Telex 417238 Aldrich G
FAX 0147822779

West Germany
Aldrich-Chemie GmbH & Co. KG
D-7924 Steinheim
Telephone 7329870
Telex 714838 Aldrich D
FAX 0732987139/239



chemists helping chemists in research & industry

aldrich chemical co.

P.O. Box 355, Milwaukee, Wisconsin 53201 USA

Telephone: (414) 273-3850
TWX: (910) 262-3052 Aldrichem MI
Telex: 26 843 Aldrich MI
FAX: (414) 273-4979

GS718

M A T E R I A L S A F E T Y D A T A S H E E T

PAGE 2

CUST#: 923153
PO#: 316-LPA-265179

PRODUCT #: 30421-2
CAS #: 513-35-9
MF: C5H10

NAME: 2-METHYL-2-BUTENE, 98%

----- FIRE AND EXPLOSION HAZARD DATA -----

FLASHPOINT: -50 F
LOWER EXPLOSION LEVEL: 1.6%
UPPER EXPLOSION LEVEL: 8.7%
EXTINGUISHING MEDIA
CARBON DIOXIDE, DRY CHEMICAL POWDER, ALCOHOL OR POLYMER FOAM.
WATER MAY BE EFFECTIVE FOR COOLING, BUT MAY NOT EFFECT EXTINGUISHMENT.
SPECIAL FIREFIGHTING PROCEDURES
WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO
PREVENT CONTACT WITH SKIN AND EYES.
USE WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS.
UNUSUAL FIRE AND EXPLOSIONS HAZARDS
VAPOR MAY TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND
FLASH BACK.
CONTAINER EXPLOSION MAY OCCUR UNDER FIRE CONDITIONS.
FORMS EXPLOSIVE MIXTURES IN AIR.
EXTREMELY FLAMMABLE.

----- REACTIVITY DATA -----

INCOMPATIBILITIES
ACIDS
OXIDIZING AGENTS
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
TOXIC FUMES OF:
CARBON MONOXIDE, CARBON DIOXIDE

----- SPILL OR LEAK PROCEDURES -----

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED
EVACUATE AREA.
SHUT OFF ALL SOURCES OF IGNITION.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY
RUBBER GLOVES.
COVER WITH AN ACTIVATED CARBON ADSORBENT, TAKE UP AND PLACE IN CLOSED
CONTAINERS. TRANSPORT OUTDOORS.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.
WASTE DISPOSAL METHOD
BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND
SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS MATERIAL IS HIGHLY
FLAMMABLE.
OBSERVE ALL FEDERAL, STATE, AND LOCAL LAWS.

--- PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE ---

WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT
GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.
SAFETY SHOWER AND EYE BATH.

CONTINUED ON NEXT PAGE

SAL 000009562

Belgium/Netherlands
Aldrich Chemie
Boulevard Lambertmont 140 b6
Bd Lambertmont 140 b6
B-1030 Bruxelles/Brussel
Telephone
Belgium 114747
Holland 060224748
Telex 62302 Aldrich B

France
Aldrich-Chimie S.A./L
27, Fosse des Treces
F-67000 Strasbourg
Telephone 88321010
Telex 890078 Aldrich F
FAX 88751283

Italy
Aldrich Chimica S.r.l.
Via Pietro Toesli 4
20127 Milano
Telephone 022613689
Telex 330862 Aldrich I
FAX 022896301

Japan
Aldrich Japan
Kyodo Bldg. Shinjuku
10 Kanda-Mishincho
Chiyoda-Ku, Tokyo
Telephone 032580155
FAX 032580157

Spain
Aldrich Quimica
Apt. de Correos 181
28100 Alcobendas (Madrid)
Telephone 915639977
Telex 22189 SAQS-E
FAX 915638084

United Kingdom
Aldrich Chemical Co., Ltd
The Old Brickyard, New Road
Gillingham, Dorset SP6 4JL
Telephone 0147822211
Telex 417238 Aldrich G
FAX 0147823778

West Germany
Aldrich-Chemie GmbH & Co. KG
D-7924 Steinheim
Telephone 7329870
Telex 714836 Aldrich D
FAX 0732987139/238



chemists helping chemists in research & industry

aldrich chemical co.

P.O. Box 355, Milwaukee, Wisconsin 53201 USA

Telephone: (414) 273-3850
TWX: (910) 262-3052 Aldrichem MI
Telex: 26 843 Aldrich MI
FAX: (414) 273-4979

GS718

M A T E R I A L S A F E T Y D A T A S H E E T

PAGE 3

CUST#: 923153
PO#: 316-LPA-265179

PRODUCT #: 30421-2
CAS #: 513-35-9
MF: C5H10

NAME: 2-METHYL-2-BUTENE, 98%

--- PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE ---

MECHANICAL EXHAUST REQUIRED.
DO NOT BREATHE VAPOR.
AVOID CONTACT WITH EYES, SKIN AND CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.
WASH THOROUGHLY AFTER HANDLING.
IRRITANT.
KEEP TIGHTLY CLOSED.
UNPLEASANT ODOR.
OPEN CAREFULLY.
MAY DEVELOP PRESSURE.
REFRIGERATE BEFORE OPENING.

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE
ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. ALDRICH SHALL NOT BE HELD
LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE
AFORE PRODUCT. SEE REVERSE SIDE OF INVOICE OR PACKING SLIP FOR ADDITIONAL
TERMS AND CONDITIONS OF SALE.

COPYRIGHT 1990 ALDRICH CHEMICAL CO., INC.
LICENSE GRANTED TO MAKE UNLIMITED COPIES FOR INTERNAL USE ONLY.

SAL 000009563

Belgium/Holland
Aldrich Chemie
Boulevard Lambertini 140 b6
B-1030 Bruxelles/Brussel
Telephone
Belgium 114747
Holland 060224748
Telex 62302 Aldrich B
FAX 020224748

France
Aldrich-Chimie S.r.l.
27, Fosse des Tréze
F-67000 Strasbourg
Telephone 88327010
Telex 890076 Aldrich F
FAX 88751265

Italy
Aldrich Chimica S.r.l.
Via Pietro Toselli, 4
20127 Milano
Telephone 022613689
Telex 330862 Aldrich I
FAX 022896301

Japan
Aldrich Japan
Kyodo Bldg. Shinjuku
10 Kanda-Mikuracho
Chiyoda-Ku, Tokyo
Telephone 032560155
FAX 032560157

Spain
Aldrich Quimica
Apt. de Correos 181
28100 Alcobendas (Madrid)
Telephone 916639977
Telex 22189 SAQS-E
FAX 916639988

United Kingdom
Aldrich Chemical Co., Ltd.
The Old Brickyard, New Road
Gillingham, Dorset SP8 4JL
Telephone 0747822211
Telex 417238 Aldrich G
FAX 0747823778

West Germany
Aldrich-Chemie GmbH & Co. KG
D-7924 Steinheim
Telephone 7329870
Telex 714838 Aldrich D
FAX 0732987139/239

CENTURY PAPERS INC
4902 GULF FREEWAY
HOUSTON, TEXAS 77023
PHONE NO. 713/ 928-5171

GS714

SECTION 1- PRODUCT IDENTIFICATION

SHEET NO. 0915

PRODUCT NAME: CRYSTAL OBEY

QUEST ITEM: 213003

ITEM NO. 409-5006
REVISION DATE: 10-31-89

SECTION 2- HAZARDOUS INGREDIENTS

NAME:	CAS#	OSHA PEL:	ACGIH TLV:	OTHER LIM:	%
ISOPROPYL ALCOHOL *	67630	400 PPM	400 PPM	N/A	
L.P.G.	68476857	1000 PPM	1000 PPM	N/A	

COMMENTS:

THIS PRODUCT CONTAINS THE TOXIC CHEMICALS MARKED WITH AN * SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND OF 40 CFR 372.

SECTION 3- PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT:	N/A	SPECIFIC GRAVITY: (WATER =1)	0.95
VAPOR PRESSURE: (MM HG)	760	MELTING POINT:	N/A
VAPOR DENSITY: (AIR =1)	>1	EVAPORATION RATE:	>1
SOLUBILITY IN WATER:	100 %	(BUTYL ACETATE=1)	
APPEARANCE AND ODOR:	WHITE FOAM, MILD ODOR		

SECTION 4- FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED) NONE FLAMMABLE LIMITS: LEL: N/A UEL: N/A
EXTINGUISHING MEDIA: NONE
SPECIAL FIRE FIGHTING PROCEDURES: NONE

UNUSUAL FIRE AND EXPLOSION HAZARDS: CONTENTS UNDER PRESSURE. EXPOSURE TO TEMPERATURES ABOVE 120 F. MAY CAUSE BURSTING.

SECTION 5- REACTIVITY DATA

STABILITY: STABLE CONDITIONS TO AVOID: NONE

INCOMPATIBILITY (MATERIALS TO AVOID): STRONG OXIDIZERS, ALKALIES, ACIDS.
HAZARDOUS DECOMPOSITION PRODUCTS: NONE KNOWN

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
CONDITIONS TO AVOID: NONE

SECTION 6- HEALTH HAZARD DATA

ROUTES OF ENTRY: INHALATION: YES, SKIN: NO, INGESTION: NO
HEALTH HAZARDS (ACUTE AND CHRONIC)
MAY CAUSE IRRITATION TO EYES. MAY CAUSE DIZZINESS. NO OTHER KNOWN EFFECTS.

CARCINOGENICITY:
NTP: NO, IARC MONOGRAPHS: NO OSHA REG: N O
SIGNS AND SYMPTOMS OF EXPOSURE:
EYES: IRRITATION. INHALATION: DIZZINESS, HEADACHE.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NONE

EMERGENCY AND FIRST AID PROCEDURES:

EYES: FLUSH WITH WATER AND SEE PHYSICIAN. INHALATION: REMOVE TO FRESH AIR AND SEE PHYSICIAN.

SECTION 7- PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: MOP OR WIPE UP SPILL. DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL GUIDELINES.

SAL 000009564

MATERIAL SAFETY DATA SHEET
PRODUCT NAME: CRYSTAL OBEY
PRODUCT NO. 409-5006

PAGE 2

GS714

SECTION 8- CONTROL MEASURES

RESPIRATORY PROTECTION: NONE

VENTILATION:

LOCAL EXHAUST: N/A

MECHANICAL: N/A

SPECIAL: N/A

OTHER: N/A

OTHER PROTECTIVE CLOTHING AND EQUIPMENT: N/A

WORK HYGIENIC PRACTICES:

WASH HANDS AFTER USE.

SAL 000009565

MATERIAL SAFETY DATA SHEET
PRODUCT NAME: STA-OFF
PRODUCT NO. 422-0331

PAGE 2

GS715

SECTION 7- PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
WIPE UP WITH RAG OR USE SOME ABSORBENT CLAY MATERIAL.

WASTE DISPOSAL METHOD:
DISPOSE OF RESIDUE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL
GUIDELINES. DO NOT PUNCTURE OR INCINERATE CONTAINER.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
WRAP CONTAINER AND PLACE IN TRASH COLLECTION.

OTHER PRECAUTIONS: DO NOT USE OR STORE NEAR HEAT OR OPEN FLAME. EXPOSURE
TO TEMPERATURES ABOVE 120 F. MAY CAUSE BURSTING.

OTHER PRECAUTIONS: NONE

SECTION 8- CONTROL MEASURES

RESPIRATORY PROTECTION: N/A

VENTILATION:

LOCAL EXHAUST: XX

MECHANICAL: N/A

SPECIAL: N/A

OTHER: N/A

PROTECTIVE GLOVES: N/A

EYE PROTECTION: N/A

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: N/A

WORK/HYGIENIC PRACTICES: N/A

CENTURY PAPERS INC
4902 GULF FREEWAY
HOUSTON, TEXAS 77023
EMERGENCY PHONE NO. 713-928-5171

GS715

SECTION 1- PRODUCT IDENTIFICATION

SHEET NO. 0918

PRODUCT NAME: STA-OFF

REVISION DATE: 11-08-89

ITEM NO. 422-0331

QUEST ITEM: 435003

SECTION 2- HAZARDOUS INGREDIENTS

NAME:	CAS NO	OSHA PEL:	ACGIH TLV:	OTHER LIM: %
ISOPROPYL ALCOHOL •	67630	400 PPM	400 PPM	N/A
L.P.G.	68476857	1000 PPM	1000 PPM	N/A
METHYLCHLOROFORM *	71556	350 PPM	350 PPM	N/A

SECTION 3- PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: 165 F. SPECIFIC GRAVITY (WATER =1) 1.05
VAPOR PRESSURE (MM HG) 70 MELTING POINT: N/A
VAPOR DENSITY: (AIR =1) 1 EVAPORATION RATE: 3
SOLUBILITY IN WATER: 0% (BUTYL ACETATE=1)
APPEARANCE AND ODOR: CLEAR SPRAY, MUSK ODOR

SECTION 4- FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): NONE FLAMMABLE LIMITS: LEL: N/A UEL: N/A
EXTINGUISHING MEDIA: CO2, FOAM, WATER, DRY CHEMICAL

SPECIAL FIRE FIGHTING PROCEDURES: NONE

UNUSUAL FIRE AND EXPLOSION HAZARDS: CONTENTS UNDER PRESSURE. EXPOSURE TO
TEMPERATURES ABOVE 120 F. MAY CAUST BURSTING.

SECTION 5- REACTIVITY DATA

STABILITY: STABLE CONDITIONS TO AVOID: TEMPERATURES ABOVE 120F.

INCOMPATIBILITY (MATERIALS TO AVOID)
DO NOT EXPOSE TO PAINTED SURFACES OR MOST PLASTICS.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: N/A

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
CONDITIONS TO AVOID: N/A

SECTION 6- HEALTH HAZARD DATA

ROUTES OF ENTRY: INHALATION: YES, SKIN: NO, INGESTION: NO
HEALTH HAZARDS(ACUTE AND CHRONIC)
INHALATION: DIZZINESS. PROLONGED EXPOSURE MAY LEAD TO UNCONSCIOUSNESS
EYES: STRONG IRRITATION, REDDENING.

CARCINOGENICITY:
NTP: NO, IARC MONOGRAPHS: NO, OSHA REG: NO
SIGNS AND SYMPTOMS OF EXPOSURE:
SEE HEALTH HAZARDS
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
NONE KNOWN

EMERGENCY AND FIRST AID PROCEDURES:
INHALATION: REMOVE TO FRESH AIR. EYES: DO NOT EXPOSE TO EYES.
FLUSH WITH RUNNING WATER AND SEE PHYSICIAN.

SAL 000009567

(008342-0158P -E0016293-5925)

DATE OF ISSUE
12/13/89SUPERSEDES
02/71/97

SECTION I - GENERAL INFORMATION

CHEMICAL NAME & SYNONYMS N/A	TRADE NAME & SYNONYMS SCOOT	
CHEMICAL FAMILY ACID BOWL CLEANER AND DISINFECTANT	FORMULA X<--MIXTURE	
MANUFACTURERS NAME: NATIONAL CHEMSEARCH DIV. OF NCH CORP.		
ADDRESS (NUMBER, STREET, CITY, STATE & ZIP CODE) BOX 1E2170 IRVING, TEXAS 75015		
PREPARED BY: RICHARD STOLLEY/T.S.CHEM.	PRODUCT CODE NUMBER 5925	EMERGENCY TELEPHONE NUMBER 214-438-1381

SECTION II- HAZARDOUS INGREDIENTS

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS AS THE PRODUCT MIXTURE HAS NOT BEEN TESTED AS A WHOLE.

CHEMICAL NAME (INGREDIENTS)	HAZARD	TLV*	PEL	CAS#
HYDROCHLORIC ACID	CORROSIVE	5PPM-(C)	5PPM-(C)	7647-01-0

SECTION IIA - NON-HAZARDOUS INGREDIENTS

NON-HAZARDOUS INGREDIENT NAMES AND CAS NUMBERS ARE PROTECTED UNDER NJ TRADE SECRET REGISTRY # 409363-5044P

SECTION III - PHYSICAL DATA

SCOOT

(CONTINUED)

SECTION III - PHYSICAL DATA

PAGE : 02

BOILING PT. (FAHRENHEIT)	220	SPEC GRAVITY (H2O=1)	1.122
VAPOR PRESSURE (MM HG)	25	COLOR	YELLOW
VAPOR DENSITY (AIR=1)	1.0	ODOR	PUNGENT
PH @ 100%	1.0	CLARITY	TRANSPARENT
PERCENT VOLATILE BY VOLUME (%)	<95	EVAPORATION RATE (BU AC @ 1)	0.1
SOLUBILITY IN WATER	COMPLETE		
VISCOSITY	NON-VISCOUS		

SECTION IV - FIRE AND EXPLOSION HAZARD

FLASH POINT (METHOD USED)	FLAMMABLE LIMITS	N/A	LEL	N/A	UEL
NON-FLAM					
EXTINGUISHING MEDIA "ALCOHOL"					
X<--FOAM	X<--CO2	X<--DRY CHEMICAL	X<--WATER SPRAY		X<--OTHER

SPECIAL FIRE FIGHTING PROCEDURES

PRESSURE-DEMAND SELF-CONTAINED RESPIRATORY EQUIPMENT. HYDROCHLORIC ACID ITSELF IS NON-FLAMMABLE.

UNUSUAL FIRE & EXPLOSION HAZARDS

A LATENT FIRE OR EXPLOSIVE HAZARD WHEN IN CONTACT WITH METALS DUE TO THE GENERATION OF HYDROGEN GAS.

NFPA HAZARD RATING (0=INSIGNIFICANT; 1=SLIGHT; 2=MODERATE; 3=HIGH; 4=EXTREME):
3<--HEALTH 0<--FLAMMABILITY 0<--REACTIVITY <--SPECIAL

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE :

NOT ESTABLISHED FOR MIXTURE. SEE SECTION II.

EFFECTS OF OVEREXPOSURE

- ACUTE - (SHORT TERM EXPOSURE)
INGESTION CAUSES SEVERE BURNS OF THE MUCOUS MEMBRANES OF THE MOUTH,

SAL 000009568

GS716

SC0GT

(CONTINUED)

SECTION V - HEALTH HAZARD DATA

PAGE : 03

ESOPHAGUS AND STOMACH PAIN IN THE THROAT AND STOMACH WITH DIFFICULTY IN SWALLOWING. INTENSE THIRST, NAUSEA AND VOMITING FOLLOWED BY DIARRHEA, ARE COMMON. IN SEVERE CASES THIS IS FOLLOWED BY COLLAPSE AND UNCONSCIOUSNESS. EYE CONTACT CAUSES SEVERE IRRITATION AND PAINFUL BURNS OF THE EYES AND EYELIDS. SKIN CONTACT WITH CONCENTRATE CAUSES DESTRUCTION OF CLOTHING AND SEVERE BURNS UNLESS PROMPTLY WASHED OFF. REPEATED SKIN CONTACT WITH DILUTED PRODUCT MAY LEAD TO THE DEVELOPMENT OF DERMATITIS. INHALATION OF EXCESSIVE CONCENTRATION OF VAPORS PRODUCES SEVERE IRRITATION OF THE UPPER RESPIRATORY TRACT WITH COUGHING, BURNING OF THROAT AND A CHOKING SENSATION. CHRONIC INGESTION MAY PRODUCE FATAL EFFECTS FROM ESOPHAGEAL OR GASTRIC NECROSIS. DENTAL DISCOLORATION AND EROSION OF EXPOSED INCISORS OCCUR ON PROLONGED EXPOSURE TO LOW CONCENTRATIONS OF HYDROCHLORIC ACID VAPORS. EYE EXPOSURES MAY RESULT IN PROLONGED OR PERMANENT VISUAL IMPAIRMENT OR TOTAL LOSS OF SIGHT. CHRONIC SKIN EXPOSURES CAN YIELD ULCERATION AND SUBSEQUENT SCARRING. THE IRRITANT EFFECT OF VAPORS ON THE RESPIRATORY TRACT MAY PRODUCE LARYNGITIS, GLOTTAL EDEMA, BRONCHITIS, PULMONARY EDEMA, AND DEATH.

PRIMARY ROUTE OF ENTRY: <-- INHALATION <-- INGESTION X<-- ABSORPTION

EMERGENCY & FIRST AID PROCEDURES

INHALATION:
GET PERSON OUT OF CONTAMINATED AREA TO FRESH AIR. IF BREATHING HAS STOPPED, ARTIFICIAL RESPIRATION SHOULD BE STARTED. OXYGEN MAY BE ADMINISTERED, IF READILY AVAILABLE. SEEK MEDICAL ATTENTION IMMEDIATELY.

EYE CONTACT:
IMMEDIATELY FLUSH EYES WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES HOLDING EYELIDS APART TO ENSURE FLUSHING OF THE ENTIRE EYE SURFACE. WASHING EYES WITHIN 1 MINUTE IS ESSENTIAL TO ACHIEVE MAXIMUM EFFECTIVENESS. SEEK MEDICAL ATTENTION IMMEDIATELY.

SKIN CONTACT:
IMMEDIATELY WASH CONTAMINATED SKIN WITH PLenty OF WATER. THIS MAY BE FOLLOWED WITH A RINSE WITH SODIUM BICARBONATE (3% SOLUTION) IF AVAILABLE. REMOVE CONTAMINATED CLOTHING AND FOOTWEAR AND WASH CLOTHING BEFORE REUSE. DISCARD FOOTWEAR WHICH CANNOT BE DECONTAMINATED. SEEK MEDICAL ATTENTION IF IRRITATION PERSISTS.

INGESTION:
IF SWALLOWED, DO NOT INDUCE VOMITING. GIVE LARGE QUANTITIES OF WATER. IF AVAILABLE, GIVE SEVERAL GLASSES OF MILK. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. SEEK MEDICAL ATTENTION IMMEDIATELY.

NOTES TO PHYSICIAN:

N/A

SECTION VI - TOXICITY INFORMATION

PRODUCT CONTAINS CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN BY:

IARC <--YES NTP <--YES OSHA <--YES ACGIH <--YES OTHER <--YES
X<--NO X<--NO X<--NO X<--NO X<--NO X<--NO

SC0GT

(CONTINUED)

SECTION VI - TOXICITY INFORMATION

PAGE : 04

HYDROCHLORIC ACID

TXDS:
INH-MAN LCLO: 1300 PPM/30M 3.
UNK-MAN LDLO: 81 MG/KG 3.
DRAL-RBT LD50: 900 MG/KG 3.
MTDS:
CYT-GRH-PAR: 0.01 ML 3.

SECTION VII - REACTIVITY DATA

STABILITY: X<--STABLE <--UNSTABLE CONDITIONS TO AVOID
HCL GAS IS SLOWLY RELEASED FROM UNCONFINED ACIDS. CONTACT WITH METALS MAY CAUSE GENERATION OF EXPLOSIVE OR FLAMMABLE HYDROGEN.

INCOMPATIBILITY (MATERIALS TO AVOID):
SILVER, BLEACH, ALKALIS, ALKALI METALS, CORROSIVES, AMMONIA
MATERIALS, METALS: AL, TIN, ZN. OXIDIZING MATERIALS OXIDIZE TO CL.

HAZARDOUS DECOMPOSITION PRODUCTS

CHLORINE AND HYDROGEN GAS

HAZARDOUS: WILL NOT MAY
X <--OCCUR <--OCCUR CONDITIONS TO AVOID

POLYMERIZATION: N/A

SECTION VIII - SPILL OR LEAK PROCEDURES

STEPS TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
SMALL QUANTITIES MAY BE FLUSHED WITH COPIOUS QUANTITIES OF WATER. IN CASE OF LARGER AMOUNTS, CONTAIN LIQUID. USE LIFESTONE, LIME, OR SODA ASH TO CAUTIOUSLY NEUTRALIZE.

WASTE DISPOSAL METHOD:
DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS CONCERNING HEALTH AND POLLUTION. DISPOSE OF VIA APPROVED CHEMICAL WASTE DISPOSAL METHODS, IF REGULATIONS PERMIT.

NEUTRALIZING AGENT:
SODA ASH - SLAKED LIME IS ADDED SLOWLY WHILE STIRRING. FLUSH TO DRAIN WITH LARGE VOLUMES OF WATER.

SECTION IX - SPECIAL PROTECTION INFORMATION

SAL 000009569

(CONTINUED)

SECTION IX - SPECIAL PROTECTION INFORMATION PAGE : 05

GS716

REQUIRED VENTILATION

GOOD VENTILATION HYGIENE PRACTICE DICTATES THAT THE WORK AREA SHOULD BE ISOLATED AND CONTAINED, AND PROVIDED WITH ADEQUATE LOCAL EXHAUST VENTILATION OR OTHER CONTROLS TO MAINTAIN THE AIR CONCENTRATION OF HYDROGEN CHLORIDE BELOW 7MG/M3 (5 PPM) AS REQUIRED BY OSHA.

RESPIRATORY PROTECTION

NIOSH APPROVED RESPIRATORY PROTECTION REQUIRED IN THE ABSENCE OF PROPER ENVIRONMENTAL CONTROL. FOR EMERGENCIES, A SELF-CONTAINED BREATHING APPARATUS OR A FULL FACE RESPIRATOR AS APPROVED BY NIOSH IS RECOMMENDED. THE IDLH LEVEL IS 100 PPM. RECOMMENDED RESPIRATOR SELECTIONS: FOR EXPOSURES = < 50 PPM - CCRAG/SA/SCBA; = < 100 PPM - CCRABF/GMAG/SAF/SCBAF.

PROTECTIVE GLOVES

RUBBER, SYNTHETIC ELASTOMERS, PVC, OR OTHER PLASTIC SHOULD BE WORN.

EYE PROTECTION

CHEMICAL SPLASH GOGGLES AND FACESHIELD SHOULD BE WORN DEPENDING ON THE EXTENT OF EXPOSURE LIKELY.

OTHER PROTECTION

PROTECTIVE CLOTHING TO PREVENT SKIN CONTACT.

SECTION X - STORAGE AND HANDLING INFORMATION

STORAGE TEMPERATURE

120 F. <--MAX 32 F. <--MIN | INDOOR | HEATED | REFRIGERATED | OUTDOOR

PRECAUTIONS TO BE TAKEN IN HANDLING & STORING

PREVENT ALL CONTACT WITH EYES AND SKIN. AVOID BREATHING IRRITATING VAPORS.

OTHER PRECAUTIONS

STORE IN A COOL DRY PLACE. FOLLOW LABEL DIRECTIONS. KEEP OUT OF REACH OF CHILDREN.

SECTION XI - REGULATORY INFORMATION

CHEMICAL NAME

C.A.S. NUMBER

UPPER % LIMIT

HYDROCHLORIC ACID

7647-01-0

20-30

THOSE INGREDIENTS LISTED ABOVE ARE SUBJECT TO THE REPORTING REQUIREMENTS OF 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372. IF UE (USE EXEMPTION) APPEARS UNDER UPPER % LIMIT, END USERS ARE EXEMPT

(CONTINUED)

SECTION XI - REGULATORY INFORMATION

PAGE : 06

FROM NOTIFICATION BECAUSE THE PRODUCT IS USED AND LABELED FOR ROUTINE JANITORIAL WORK, OR THE PRODUCT IS USED AND LABELED FOR FACILITY GROUNDS MAINTENANCE (SUCH AS FERTILIZERS AND HERBICIDES), OR THE PRODUCT IS USED AND LABELED FOR MAINTAINING MOTOR VEHICLES.

SECTION XII - TRANSPORTATION * (FOR FUTURE USE)

APPLICABLE REGULATIONS

<--49 CFR <--IMCO <--TARIFF 6 D <--IATA <--MILITARY AIR (AFR 71-4)

SHIPPING NAME

HAZARD CLASS

| ID NUMBER | REPORT QTY

LABELS

| LIMITED QTY

UNIT CONTAINER

DOT SPS CONTAINER

| NET EXPLOSIVE WT.

AEROSOL PROPELLANT(S)

SECTION XIII - REFERENCES

1. HANDBOOK OF TOXIC AND HAZARDOUS CHEMICALS AND CARCINOGENS, 2ND EDITION, MARSHALL SITTIG, 1985.
2. NIOSH REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, 1982.
3. DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, 6TH EDITION, N. IRVING SAX.

SAL 000009570

7 S 7 16

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED ACCURATE IN LIGHT OF CURRENT FORMULATION. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

NATIONAL CHEMSEARCH DIV. OF NCH CORP. ASSUMES NO RESPONSIBILITY FOR PERSONAL INJURY OR PROPERTY DAMAGE CAUSED BY THE USE, STORAGE OR DISPOSAL OF THE PRODUCT IN A MANNER NOT RECOMMENDED ON THE PRODUCT LABEL. USERS ASSUME ALL RISKS ASSOCIATED WITH SUCH UNRECOMMENDED USE, STORAGE, OR DISPOSAL OF THE PRODUCT.

SAL 000009571

(006342-0158P -E0016293-5845)

DATE OF ISSUE
09/01/89SUPERSEDES
08/02/89

G S7 18

SECTION I - GENERAL INFORMATION

CHEMICAL NAME & SYNONYMS N/A	TRADE NAME & SYNONYMS M/M FIX ALL	
CHEMICAL FAMILY ADHESIVE-SOLVENT BASED	FORMULA X--MIXTURE	
MANUFACTURERS NAME: NATIONAL CHEMSEARCH DIV. OF NCH CORP.		
ADDRESS (NUMBER, STREET, CITY, STATE & ZIP CODE) BOX 152170 IRVING, TEXAS 75015		
PREPARED BY: RICHARD STOLLEY/T.S.CHEM.	PRODUCT CODE NUMBER 5845	EMERGENCY TELEPHONE NUMBER 214-438-1381

SECTION II- HAZARDOUS INGREDIENTS

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS AS THE PRODUCT MIXTURE HAS NOT BEEN TESTED AS A WHOLE.

CHEMICAL NAME (INGREDIENTS)	HAZARD	TLV*	PEL*	CAS#
TOLUENE	FLAMM/IRR	100PPM	100PPM	108-88-3
THERMOPLASTIC RUBBER	IRRITANT	NOT EST.	NOT EST.	9003-55-8
INERT RESIN 1	EYE IRR.	NOT EST.	NOT EST.	9011-11-4
VM&P NAPHTHA	FLAMM/IRR	300PPM 1.	1350MG/M3	64742-89-8

SECTION III - PHYSICAL DATA

M/M FIX ALL

(CONTINUED)

SECTION III - PHYSICAL DATA

PAGE : 02

BOILING PT. (FAHRENHEIT)	231 F	SPEC GRAVITY (M20=1)	0.9
VAPOR PRESSURE (MM HG)	22	COLOR	COLORLESS
VAPOR DENSITY (AIR=1)	3.2	ODOR	AROMATIC
PH @ 100%	N/A	CLARITY	CLEAR
PERCENT VOLATILE BY VOLUME (%)	67	EVAPORATION RATE (BU AC = 1)	N/A
SOLUBILITY IN WATER	NEGLIGIBLE		
VISCOSITY	VISCOUS		

SECTION IV - FIRE AND EXPLOSION HAZARD

FLASH POINT (METHOD USED)	40 F. T.C.C.	FLAMMABLE LIMITS	N/A	LEL	N/A	UEL	N/A
EXTINGUISHING MEDIA	"ALCOHOL"	DRY	WATER				
X--FOAM	X--FOAM	X--CO2	X--CHEMICAL	X--SPRAY			X--OTHER

SPECIAL FIRE FIGHTING PROCEDURES
WARNING-FLAMMABLE! EVACUATE ALL UNPROTECTED PERSONNEL. DO NOT ENTER AREA WITHOUT FULL PROTECTIVE GEAR INCLUDING POSITIVE PRESSURE SCBA.

UNUSUAL FIRE & EXPLOSION HAZARDS
SPRAY EXPOSED CONTAINERS WITH WATER TO PREVENT BUILDUP OF PRESSURE WHICH COULD CAUSE A RUPTURE.

NFPA HAZARD RATING (0=INSIGNIFICANT; 1=SLIGHT; 2=MODERATE; 3=HIGH; 4=EXTREME):
3 --HEALTH 3 --FLAMMABILITY 0 --REACTIVITY --SPECIAL

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
NOT ESTABLISHED FOR MIXTURE. SEE SECTION II

EFFECTS OF OVEREXPOSURE
- ACUTE - (SHORT TERM EXPOSURE)
EYE CONTACT: MILD IRRITATION, REDNESS AND DISCOMFORT.

SAL 000009572

G S 7 18

(CONTINUED)

SECTION V - HEALTH HAZARD DATA

PAGE : 03

SKIN: SHORT CONTACT USUALLY IS NOT IRRITATING. HOWEVER PERSONS WITH SENSITIVE SKIN MAY BE AFFECTED.
 INHALATION: CAN LEAD TO CENTRAL NERVOUS SYSTEM DEPRESSION, HEADACHE, DIZZINESS, NAUSEA, AND LOSS OF CONSCIOUSNESS.
 INGESTION: SINGLE DOSE ORAL TOXICITY IS LOW, ALTHOUGH IT COULD CAUSE NAUSEA AND GASTROINTESTINAL IRRITATION AND ASPIRATION OF MATERIAL COULD LEAD TO CHEMICAL PNEUMONIA.

CHRONIC SKIN CONTACT CAN CAUSE IRRITATION AND CAN LEAD TO DERMATITIS.
 CHRONIC EYE CONTACT CAN CAUSE MARKED IRRITATION AND MAY LEAD TO CONJUNCTIVITIS.
 CHRONIC INHALATION CAN LEAD TO NARCOSIS.

PRIMARY ROUTE OF ENTRY: X<<< INHALATION <<< INGESTION <<< ABSORPTION

EMERGENCY & FIRST AID PROCEDURES

INHALATION:
 GET PERSON OUT OF CONTAMINATED AREA TO FRESH AIR AND TREAT SYMPTOMATICALLY.
 IF BREATHING HAS STOPPED ARTIFICIAL RESPIRATION SHOULD BE STARTED. OXYGEN SHOULD BE ADMINISTERED, IF READILY AVAILABLE. SEEK MEDICAL ATTENTION.

EYE CONTACT:
 IMMEDIATELY FLUSH WITH CPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES.
 HOLDING EYELIDS APART TO ENSURE FLUSHING OF THE ENTIRE EYE SURFACE.
 SEEK MEDICAL ATTENTION.

SKIN CONTACT:
 WASH WITH SOAP AND WATER. APPLY A SOOTHING EMOLIENT CREAM TO IRRITATED SKIN AFTER CLEANSING. THE MILD BUT TRANSIENT IRRITATION WHICH MAY RESULT SHOULD BE BROUGHT TO THE ATTENTION OF A PHYSICIAN IF IRRITATION PERSISTS.

INGESTION:
 IF SWALLOWED, DO NOT INDUCE VOMITING. IF VOMITTING OCCURS SPONTANEOUSLY POSITION THE PERSONS HEAD SO AS TO KEEP THE AIRWAY CLEAR. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONCIOUS PERSON. SEEK MEDICAL ATTENTION.

NOTES TO PHYSICIAN:
 DEPENDING ON THE AMOUNT INGESTED AND RETAINED, AS WELL AS THE TOXICITY OF THE COMPONENTS, GASTRIC LAVAGE SHOULD BE CONSIDERED. KEEP PATIENTS HEAD BELOW HIPS TO PREVENT PULMONARY ASPIRATION. IF COMATOSE, A CUFFED ENOTRACHEAL TUBE WILL PREVENT ASPIRATION. CONSULT A POISON CONTROL CENTER.

SECTION VI - TOXICITY INFORMATION

PRODUCT CONTAINS CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN BY:

IARC <<<YES NTP <<<YES OSHA <<<YES ACGIH <<<YES
 X<<<NO X<<<NO X<<<NO X<<<NO X<<<NO

TOLUENE

TXDS: ORL-RAT LD50: 5000 MG/KG 2.
 SKN-RBT LD50: 14G MG/KG 2.
 EYE-RBT 2MG/24H SEVERE 2.

M/M FIX ALL

(CONTINUED)

SECTION VI - TOXICITY INFORMATION

PAGE : 04

IHL-HMN TDLO: 20PPM:CNS 2.

VM&P NAPHTHA

TXDS: EYE-HMN 880PPM/15M 2.
 IHL-HMN TDLO: 600MG/M3/8H:IRR 2.
 UNK-MAN LDLO: 1470MG/M3 2.

SECTION VII - REACTIVITY DATA

STABILITY X<<<STABLE <<<UNSTABLE CONDITIONS TO AVOID
 AVOID OPEN FLAMES, WELDING ARCS OR HIGH TEMPERATURES SOURCES WHICH INDUCE THERMAL DECOMPOSITION.

INCOMPATIBILITY (MATERIALS TO AVOID)

N/A

HAZARDOUS DECOMPOSITION PRODUCTS
 CARBON MONOXIDE AND TRACE OF OTHER ORGANIC COMPOUNDS.

HAZARDOUS X<<<WILL NOT OCCUR <<<MAY OCCUR CONDITIONS TO AVOID
 POLYMERIZATION N/A

SECTION VIII - SPILL OR LEAK PROCEDURES

STEPS TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
 WARNING: FLAMMABLE! ELIMINATE ALL SOURCES OF IGNITION. HANDLING EQUIPMENT MUST BE PROPERLY GROUNDED. PICK UP WITH ABSORBANT AND PLACE INTO LABELED CONTAINERS FOR PROPER DISPOSAL.

WASTE DISPOSAL METHOD
 DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS REGARDING HEALTH AND POLLUTION. GENERALLY THE TUBE CAN BE EMPTIED, WRAPPED IN NEWSPAPER AND DISCARDED IN THE TRASH.

NEUTRALIZING AGENT
 N/A

SECTION IX - SPECIAL PROTECTION INFORMATION

REQUIRED VENTILATION
 GOOD INDUSTRIAL HYGIENE PRACTICE DICTATES THAT THE WORK AREA SHOULD BE ISOLATED AND CONTAINED, AND PROVIDED WITH ADEQUATE LOCAL EXHAUST VENTILATION OR OTHER CONTROLS NECESSARY TO MAINTAIN THE PROPER AIR QUALITY.

SAL 000009573

(CONTINUED)

SECTION IX - SPECIAL PROTECTION INFORMATION PAGE : 05

G S 7 18

RESPIRATORY PROTECTION
 IN ABSENCE OF PROPER ENVIRONMENTAL CONTROLS, A SELF CONTAINED BREATHING
 APPARATUS (COMPRESSED OXYGEN SHOULD NOT BE USED IN TANKS OR OTHER
 CONFINED AREAS), POSITIVE-PRESSURE HOSE MASK, AIR LINE MASKS, AND
 NIOSH APPROVED INDUSTRIAL CANISTER TYPE ORGANIC VAPOR MASK.
 NORMAL USE OF PRODUCT DOES NOT REQUIRE THE USE OF A RESPIRATOR.

PROTECTIVE GLOVES
 NEOPRENE GLOVES IF REPEATED OR PROLONGED SKIN
 CONTACT IS ANTICIPATED.

EYE PROTECTION
 EYE GLASSES OR FACE SHIELD IF EYE CONTACT IS
 POSSIBLE.

OTHER PROTECTION
 NOT REQUIRED.

SECTION X - STORAGE AND HANDLING INFORMATION

STORAGE TEMPERATURE	INDOOR	HEATED	REFRIGERATED	OUTDOOR
100 F <--MAX 32 F <--MIN	X			

PRECAUTIONS TO BE TAKEN IN HANDLING & STORING
 USE WITH ADEQUATE VENTILATION.
 KEEP OUT OF REACH OF CHILDREN.

OTHER PRECAUTIONS
 READ ENTIRE LABEL BEFORE USING PRODUCT.

SECTION XI - REGULATORY INFORMATION

CHEMICAL NAME	C. A. S. NUMBER	UPPER % LIMIT
TOLUENE	108-88-3	30

THOSE INGREDIENTS LISTED ABOVE ARE SUBJECT TO THE REPORTING REQUIREMENTS OF
 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF
 1986 AND 40 CFR PART 372.

IF USE (USE EXEMPTION) APPEARS UNDER UPPER % LIMIT, END USERS ARE EXEMPT
 FROM NOTIFICATION BECAUSE THE PRODUCT IS USED AND LABELED FOR ROUTINE
 JANITORIAL WORK, OR THE PRODUCT IS USED AND LABELED FOR FACILITY GROUNDS
 MAINTENANCE (SUCH AS FERTILIZERS AND HERBICIDES), OR THE PRODUCT IS USED AND
 LABELED FOR MAINTAINING MOTOR VEHICLES.

M/M FIX ALL

SECTION XII - TRANSPORTATION * (FOR FUTURE USE)

PAGE : 06

APPLICABLE REGULATIONS	<--49 CFR	<--IMCO	<--TARIFF B D	<--IATA	<--MILITARY AIR (AFR 71-4)
SHIPPING NAME					

HAZARD CLASS	ID NUMBER	REPORT QTY

LABELS	LIMITED QTY

UNIT CONTAINER

DOT SPS CONTAINER	NET EXPLDSIVE WT.

AEROSOL PROPELLANT(S)

SECTION XIII - REFERENCES

- 1) THRESHOLD LIMIT VALUES AND BIOLOGICAL EXPOSURE INDICES, 1988-1989.
- 2) DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, 6TH EDITION, N. IRVING SAX

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED
 ACCURATE IN LIGHT OF CURRENT FORMULATION. HOWEVER, NO WARRANTY
 IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA
 OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

NATIONAL CHEMSEARCH DIV. OF NCH CORP. ASSUMES NO RESPONSIBILITY
 FOR PERSONAL INJURY OR PROPERTY DAMAGE CAUSED BY THE USE, STORAGE
 OR DISPOSAL OF THE PRODUCT IN A MANNER NOT RECOMMENDED ON THE
 PRODUCT LABEL. USERS ASSUME ALL RISKS ASSOCIATED WITH SUCH
 UNRECOMMENDED USE, STORAGE, OR DISPOSAL OF THE PRODUCT.

SAL 000009574

CENTURY PAPERS INC.
4902 GULF FREEWAY
HOUSTON, TEXAS 77023
PHONE NO. 713/ 928-5171

MANUFACTURER: **CS719**
SANI-FRESH INTERNATIONAL, INC.
4702 GOLDFIELD DRIVE
SAN ANTONIO, TEXAS 78218
EMERGENCY PHONE NO. 512/ 661-5374

SECTION 1- PRODUCT IDENTIFICATION

SHEET NO. 1001

PRODUCT NAME: EUROBATH

ITEM NO. 414-0702, 414-0699, 414-0711,
SHEET NO. 1001

SECTION 2- HAZARDOUS INGREDIENTS/IDENTITY

HAZARDOUS COMPONENTS: OSHA/PEL ACGIH/TLV EXPOSURE % CAS:
LIMITS:

NONE

SECTION 3- PHYSICAL & CHEMICAL CHARACTERISTICS

BOILING POINT: N/A SPECIFIC GRAVITY: 1.015 TO 1.025

VAPOR PRESSURE: N/A VAPOR DENSITY: N/A

SOLUBILITY IN WATER: COMPLETE REACTIVITY IN WATER: NONE

APPEARANCE AND ODOR: GOLD GEL; FLORAL ODOR.

MELTING POINT: N/A

SECTION 4- FIRE & EXPLOSION DATA

FLASH POINT: N/A METHOD USED: N/A

FLAMMABLE LIMITS: LEL: N/A UEL: N/A

AUTO-IGNITION TEMPERATURE: N/A

EXTINGUISHER MEDIA: ANY STANDARD METHOD FOR FIRES IN AREA.

SPECIAL FIRE FIGHTING PROCEDURES:
NONE

UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE

SECTION 5- PHYSICAL HAZARDS (REACTIVITY DATA)

STABILITY: STABLE CONDITIONS TO AVOID: NONE

INCOMPATIBILITY(MATERIALS TO AVOID): NONE UNDER NORMAL USE CONDITIONS.

HAZARDOUS DECOMPOSITION PRODUCTS:
NOT ESTABLISHED, BUT NONE EXPECTED.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

CONDITIONS TO AVOID: NONE UNDER NORMAL USE CONDITIONS.

SECTION 6- HEALTH HAZARDS

ACUTE: STOMACH UPSET CHRONIC: NOT ESTABLISHED

SIGNS AND SYMPTOMS OF EXPOSURE:
NAUSEA

MEDICAL CONDITIONS GENERALLY
AGGRAVATED BY EXPOSURE: NOT ESTABLISHED

CHEMICAL LISTED AS CARCINOGEN
OR POTENTIAL CARCINOGEN: NTP: NO I.A.R.C: NO OSHA: NO

SAL 000009575

MATERIAL SAFETY DATA SHEET **GS719** PAGE 2
PRODUCT NAME: EUROBATH
PRODUCT NO. 414-0702, 414-0711, 414-0699, 414-1342

SECTION 6- HEALTH HAZARDS

CONTINUED.....

ROUTES OF ENTRY:

INHALATION: N/A

EYES: RINSE WITH WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION.

SKIN: N/A

INGESTION: DO NOT INDUCE VOMITING. DRINK 2 TO 3 GLASSES OF WATER AND
SEEK MEDICAL ATTENTION. DO NOT GIVE ANYTHING BY MOUTH TO
AN UNCONSCIOUS PERSON.

SECTION 7- SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

RECOMMEND STORAGE BETWEEN 40 F. AND 100 F.

OTHER PRECAUTIONS: NONE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
DILUTE WITH WATER.

WASTE DISPOSAL METHODS: RINSE DILUTED PRODUCT INTO SEWER.

SECTION 8- SPECIAL PROTECTION INFORMATION/ CONTROL MEASURES

RESPIRATORY PROTECTION: NONE

VENTILATION: NONE LOCAL EXHAUST: N/A MECHANICAL: N/A

SPECIAL:

PROTECTIVE GLOVES: NONE

EYE PROTECTION: NONE

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: NONE

WORK/HYGIENIC PRACTICES: CLEANUP SPILLS IMMEDIATELY.

SAL 000009576

CENTURY PAPERS INC.
4902 GULF FREEWAY
HOUSTON, TEXAS 77023
PHONE NO. 713/ 928-5171

GS720

MANUFACTURER:
SANI-FRESH INTERNATIONAL, INC.
4702 GOLDFIELD DRIVE
SAN ANTONIO, TEXAS 78219
EMERGENCY PHONE NO. 512/ 661-5374

SECTION 1- PRODUCT IDENTIFICATION

SHEET NO. 1007

PRODUCT NAME: LOTION HAND SOAP GENTLE LOTION CLEANSER

ITEM NO. 414-0397
414-0575, 414-2454
414-2250

SECTION 2- HAZARDOUS INGREDIENTS/IDENTITY

HAZARDOUS COMPONENTS: OSHA/PEL ACGIH/TLV EXPOSURE % CAS:
LIMITS:

NONE

SECTION 3- PHYSICAL & CHEMICAL CHARACTERISTICS

BOILING POINT: N/A SPECIFIC GRAVITY: 1.010 TO 1.020

VAPOR PRESSURE: N/A VAPOR DENSITY: N/A

SOLUBILITY IN WATER: COMPLETE REACTIVITY IN WATER: NONE

APPEARANCE AND ODOR: PINK PEARLIZED LOTION; FLORAL ODOR

MELTING POINT: N/A

SECTION 4- FIRE & EXPLOSION DATA

FLASH POINT: N/A METHOD USED: N/A

FLAMMABLE LIMITS: LEL: N/A UEL: N/A

AUTO-IGNITION TEMPERATURE: N/A

EXTINGUISHER MEDIA: ANY STANDARD METHOD FOR FIRES IN AREA.

SPECIAL FIRE FIGHTING PROCEDURES:
NONE

UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE

SECTION 5- PHYSICAL HAZARDS (REACTIVITY DATA)

STABILITY: STABLE CONDITIONS TO AVOID: NONE

INCOMPATIBILITY(MATERIALS TO AVOID): NONE UNDER NORMAL USE CONDITIONS.

HAZARDOUS DECOMPOSITION PRODUCTS:
NOT ESTABLISHED, BUT NONE EXPECTED.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

CONDITIONS TO AVOID: NONE UNDER NORMAL USE CONDITIONS.

SECTION 6- HEALTH HAZARDS

ACUTE: EYE IRRITATION, UPSET STOMACH. CHRONIC: NOT ESTABLISHED

SIGNS AND SYMPTOMS OF EXPOSURE: IRRITATION AND ITCHING OF EYES; NAUSEA

MEDICAL CONDITIONS GENERALLY
AGGRAVATED BY EXPOSURE: NOT ESTABLISHED; BUT NONE EXPECTED

CHEMICAL LISTED AS CARCINOGEN
OR POTENTIAL CARCINOGEN: NTP: NO I.A.R.C: NO OSHA: NO

SAL 000009577

GS720

MATERIAL SAFETY DATA SHEET

PAGE 2

PRODUCT NAME: LOTION HAND SOAP GENTLE LOTION CLEANSER
PRODUCT NO. 414-0397, 414-0575, 414-2454

SECTION 6- HEALTH HAZARDS

CONTINUED.....

ROUTES OF ENTRY:

INHALATION: N/A

EYES: RINSE WITH WATER FOR 15 MINUTES. CALL PHYSICIAN

SKIN: N/A

INGESTION: DRINK 2 TO 3 GLASSES OF WATER. GET MEDICAL ATTENTION.

SECTION 7- SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

RECOMMEND STORAGE BETWEEN 40 F. AND 100 F.

OTHER PRECAUTIONS: NONE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

CONTAIN AND DILUTE WITH WATER.

WASTE DISPOSAL METHODS:

RINSE DILUTED PRODUCT INTO SEWER.

SECTION 8- SPECIAL PROTECTION INFORMATION/ CONTROL MEASURES

RESPIRATORY PROTECTION: NONE

VENTILATION: NONE LOCAL EXHAUST: N/A MECHANICAL: N/A

SPECIAL:

PROTECTIVE GLOVES: NONE

EYE PROTECTION: NONE GENERALLY NEEDED.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: NONE

WORK/HYGIENIC PRACTICES: CLEANUP SPILLS IMMEDIATELY. FOLLOW GOOD PERSONAL HYGIENE PRACTICES.

SAL 000009578

CENTURY PAPERS INC.
4902 GULF FREEWAY
HOUSTON, TEXAS 77023
PHONE NO. 713/928-5171

MANUFACTURER: **GS721**
FOODSERVICE & LODGING PRODUCTS DIVISION
WINTON HILL TECHNICAL CENTER
6071 CENTER HILL ROAD
CINCINNATI, OHIO 45244
EMERGENCY PHONE NO. 1-800-983-1100

SECTION 1- PRODUCT IDENTIFICATION

SHEET NO. 0806

PRODUCT NAME: LAVA INSTITUTIONAL PACK
ITEM NO: 412-0116 BRAND CODES:

INGREDIENTS/CHEMICAL NAME: SOAP, PUMICE, WATER, GLYCERINE AND MINOR
INGREDIENTS.

SECTION 2- HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS INGREDIENTS AS DEFINED BY OSHA, 29 CFR 1910.1200.

NOTE: THIS PRODUCT IS NOT "HAZARDOUS" WITHIN THE MEANING OF THE OSHA
HAZARD COMMUNICATION STANDARD.

SECTION 3- PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT (F.): N.A. SPECIFIC GRAVITY (H2O=1): 1.18
VAPOR PRESSURE (MM HG.): N.A. PERCENT VOLATILE BY VOLUME(%): 20%
VAPOR DENSITY (AIR=1): N.A. EVAPORATION RATE (NBUOAC=1): N.A.
APPEARANCE AND ODOR: GREEN GRITTY BAR WITH LIGHT PERFUME.
SOLUBILITY IN WATER: MODERATE

SECTION 4- FLAMMABILITY AND REACTIVITY

FLASH POINT (METHOD USED): N.A.
EXPLOSIVE LIMITS: LEL: N.A. UEL: N.A.
EXTINGUISHING MEDIA: USE CO2, WATER OR DRY CHEMICAL.
SPECIAL FIRE FIGHTING PROCEDURES: NONE
UNUSUAL FIRE HAZARDS: NONE
STABILITY: STABLE CONDITIONS TO AVOID: NONE
INCOMPATIBILITY (MATERIALS TO AVOID): NONE
HAZARDOUS DECOMPOSITION/BY PRODUCTS: NONE
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
CONDITIONS TO AVOID: NONE

SECTION 5- HEALTH AND SAFETY DATA

ROUTES OF ENTRY: EYE CONTACT, INGESTION
HEALTH HAZARDS (ACUTE AND CHRONIC): MILD EYE IRRITANT

SIGNS AND SYMPTOMS OF EXPOSURE:

INSTILLATION INTO THE EYES MAY RESULT IN SLIGHT, TRANSIENT EFFECTS
SIMILAR TO THOSE PRODUCED BY OTHER MILD TOILET SOAPS. ACCIDENTAL
INGESTION MAY RESULT IN MILD GASTROINTESTINAL IRRITATION WITH NAUSEA
VOMITING OR DIARRHEA.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NONE KNOWN

MATERIAL SAFETY DATA SHEETS
PRODUCT NAME: LAVA INSTITUTIONAL PACK
PRODUCT NO. 412-0116

GS721

PAGE 2

SECTION 5- HEALTH AND SAFETY DATA

CONTINUED.....

EMERGENCY AND FIRST AID PROCEDURES:

EYE CONTACT: RINSE THOROUGHLY FOR AT LEAST 15 MINUTES.

INGESTION: DILUTE WITH WATER OR MILK AND TREAT SYMPTOMATICALLY.

OTHER: N.A

SECTION 6- PRECAUTIONS FOR SAFE HANDLING AND USE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

AVOID MOISTURE TO PREVENT PRODUCT LOSS.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SWEEP UP AND DISPOSE

WASTE DISPOSAL METHOD:

DISPOSE OF AS DRY SCRAP OR FLUSH DOWN SEWER WITH LARGE EXCESS OF WATER
IF PERMITTED, DISPOSE OF LARGE QUANTITIES AT LANDFILL. DISPOSAL IS TO
BE PERFORMED IN COMPLIANCE WITH ALL REGULATIONS.

SECTION 7- SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFY TYPE): NONE

VENTILATION: NONE MECHANICAL(GENERAL): ACCEPTABLE

EYE PROTECTION:

NONE

PROTECTIVE GLOVES:

NONE

OTHER PROTECTIVE EQUIPMENT: NONE

THE SUBMISSION OF THIS MSDS MAY BE REQUIRED BY LAW, BUT THIS IS NOT AN
ASSERTION THAT THE SUBSTANCE IS HAZARDOUS WHEN USED IN ACCORDANCE WITH
PROPER SAFETY PRACTICES AND NORMAL HANDLING PROCEDURES. DATA SUPPLIED IS
FOR USE ONLY IN CONNECTION WITH OCCUPATIONAL SAFETY AND HEALTH.

SAL 000009580

MATERIAL SAFETY DATA SHEET

I. IDENTIFICATION

Name: URINAL-BUOY
Type: A FORMULATED DEODORANT AND CLEANING BLOCK FOR TOILETS.
D.O.T
Shipping Name: NOT APPLICABLE(N/A)
Hazard Class: NA
ID No.: N/A
Label: N/A

II. HAZARDOUS INGREDIENTS

Material	Weight	TLV
----------	--------	-----

THIS PRODUCT CONTAINS NO HAZARDOUS INGREDIENTS AT GREATER THAN ONE PERCENT AS DEFINED BY FEDERAL AND STATE WORKER RIGHT-TO-KNOW LAWS.

III. PHYSICAL DATA

Boiling Point (F°): N/A
Specific Gravity (Water=1): N/A
Volatile By Weight (%): APPROX. 6%
Weight Per Gallon: (pounds): N/A
Solubility in Water: 55%
pH: N/A
Appearance & Odor: A SOLID, PERFUMED BLOCK IN A PLASTIC HOLDER

IV. FIRE & EXPLOSION HAZARD DATA

Flashpoint (F°) (Method Used): NONE
Extinguishing Media: N/A
Special Fire Fighting Procedures: N/A
Unusual Fire & Explosion Hazards: NONE

V. HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE: MAY BE HARMFUL IF SWALLOWED. DIRECT EYE CONTACT WITH AQUEOUS SOLUTION MAY BE IRRITATING

FIRST AID PROCEDURES:

If Swallowed: CONTACT A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY. TREAT SYMPTOMATICALLY.
If Inhaled: N/A
If In Eyes: FLUSH EYES IMMEDIATELY WITH PLENTY OF COOL WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS, CONTACT A PHYSICIAN.
If On Skin: FLUSH WITH WATER

VI. REACTIVITY DATA

Stability: STABLE
Conditions to Avoid: N/A
INCOMPATIBILITY (Materials to avoid): NONE
Hazardous Decomposition Products: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR

VII. SPILL OR LEAK PROCEDURES

Steps To Be Taken If Material Is Released Or Spilled: FLUSH WITH WATER.

Waste Disposal Method: FOLLOW ALL FEDERAL, STATE AND LOCAL REGULATIONS REGARDING WASTE DISPOSAL.

Follow All Federal, State and Local Regulations Regarding Waste Disposal

VIII. SPECIAL PROTECTION INFORMATION:

Eye protection and protective gloves are recommended any time your work with any concentrated industrial strength cleaning products.

Respiratory Protection: N/A
Ventilation: N/A
Protective Gloves: OPTIONAL
Eye Protection: N/A
Other Protective Equipment: N/A

IX. SPECIAL PRECAUTIONS:

Precautions To Be Taken In Handling Storage: STORE IN A COOL DRY PLACE. CAUTION: MAY BE HARMFUL IF SWALLOWED.

OTHER PRECAUTIONS:

HMIS RATING: HEALTH 1 FLAMMABILITY 0
REACTIVITY 0

Read and follow all label directions and precautions before using the product. These products are intended for industrial and institutional use only. Not intended for household use or resale.

KEEP OUT OF THE REACH OF CHILDREN

While we believe that the data contained herein is factual and the opinions expressed are those of qualified experts, the data are not to be taken as a warranty or representation for which the company assumes legal responsibility. They are offered solely for your consideration, investigation, and verification. Any use of these data and information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations.

HEALTH AND SAFETY INFORMATION (216) 861-7114
MAY 1990

SAL 000009581

G S 7 2 2

MATERIAL SAFETY DATA SHEET

I. IDENTIFICATION

Name: FRAGRANCE PAKS -

APPLE ORCHARD STOCK NO. 54100

CITRUS GROVE STOCK NO. 54105

MELON PATCH STOCK NO. 54110

Type: A FORMULATED DEODORANT GEL FOR USE WITH STATE'S FRAGRANCE FACTORY

D.O.T

Shipping Name: NOT A DOT HAZARDOUS MATERIAL

Hazard Class: NOT APPLICABLE (N/A)

ID No.: N/A

Label: N/A

II. HAZARDOUS INGREDIENTS

Material Weight TLV

THIS PRODUCT CONTAINS NO HAZARDOUS INGREDIENTS AT GREATER THAN ONE PERCENT AS DEFINED BY FEDERAL AND STATE WORKER RIGHT-TO-KNOW LAWS. NO NTP, IARC OR OSHA CARCINOGENS PRESENT

III. PHYSICAL DATA

Boiling Point (F°): N/A

Specific Gravity (Water=1): N/A

Volatile By Weight (%): >95%

Weight Per Gallon: (pounds): N/A

Solubility in Water: APPROX. 95%

pH: N/A

Appearance & Odor: A PERFUMED GEL IN A PLASTIC HOLDER

IV. FIRE & EXPLOSION HAZARD DATA

Flashpoint (F°) (Method Used): APPLE ORCHARD - NONE (PENSKEY-MARTEN CLOSED CUP) CITRUS GROVE - 113°F (PENSKEY-MARTEN'S CLOSED CUP) MELON - PATCH-NONE (PENSKEY-MARTEN'S CLOSED CUP)

Extinguishing Media: DRY CHEMICAL, CO₂ OR FOAM

Special Fire Fighting Procedures: NONE

Unusual Fire & Explosion Hazards: NONE

V. HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE: DIRECT EYE CONTACT WITH GEL MAY CAUSE MILD IRRITATION. THIS PRODUCT IS NOT INTENDED FOR INGESTION. SWALLOWING MAY CAUSE NAUSEA

CHRONIC HEALTH EFFECTS: NONE EXPECTED

FIRST AID PROCEDURES:

If Swallowed: TREAT SYMPTOMATICALLY. GET MEDICAL ADVICE FROM A PHYSICIAN OR POISON CONTROL CENTER

If Inhaled: N/A

If In Eyes: FLUSH EYES IMMEDIATELY WITH PLENTY OF COOL WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS, CONTACT A PHYSICIAN

If On Skin: FLUSH WITH WATER

VI. REACTIVITY DATA

Stability: STABLE

Conditions to Avoid: NONE

INCOMPATIBILITY (Materials to avoid): NONE

Hazardous Decomposition Products: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR

VII. SPILL OR LEAK PROCEDURES

Steps To Be Taken If Material Is Released Or Spilled: FLUSH WITH WATER

Waste Disposal Method: FOLLOW ALL FEDERAL, STATE AND LOCAL REGULATIONS REGARDING WASTE DISPOSAL. THIS IS NOT A HAZARDOUS WASTE

Follow All Federal, State and Local Regulations Regarding Waste Disposal

VIII. SPECIAL PROTECTION INFORMATION:

Eye protection and protective gloves are recommended any time your work with any concentrated industrial strength cleaning products.

Respiratory Protection: N/A

Ventilation: N/A

Protective Gloves: N/A

Eye Protection: N/A

Other Protective Equipment: N/A

IX. SPECIAL PRECAUTIONS:

Precautions To Be Taken In Handling Storage: STORE IN A COOL DRY PLACE. KEEP GEL CUPS SEALED WITH FOIL SEAL UNTIL FRAGRANCE RELEASE IS DESIRED.

OTHER PRECAUTIONS: CAUTION: DO NOT TAKE INTERNALLY. KEEP CUPS IN UPRIGHT POSITION TO PREVENT SPILLING OR SEEPAGE OF GEL ONTO PAINTED OR PLASTIC SURFACES

Read and follow all label directions and precautions before using the product. These products are intended for industrial and institutional use only. Not intended for household use or resale.

KEEP OUT OF THE REACH OF CHILDREN

While we believe that the data contained herein is factual and the opinions expressed are those of qualified experts, the data are not to be taken as a warranty or representation for which the company assumes legal responsibility. They are offered solely for your consideration, investigation, and verification. Any use of these data and information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations.

HEALTH AND SAFETY INFORMATION (216) 861-7114

APRIL 1990

SAL 000009582

G S 7 2 3

MATERIAL SAFETY DATA SHEET

I. IDENTIFICATION

Name: JONADE

Type: A FORMULATED DEODORANT AND CLEANING BLOCK FOR TOILETS.
D.O.T

Shipping Name: NOT APPLICABLE(N/A)

Hazard Class: N/A

ID No.: N/A

Label: N/A

II. HAZARDOUS INGREDIENTS

Material	Weight	TLV
----------	--------	-----

THIS PRODUCT CONTAINS NO HAZARDOUS INGREDIENTS AT GREATER THAN ONE PERCENT AS DEFINED BY FEDERAL AND STATE WORKER RIGHT-TO-KNOW LAWS.

III. PHYSICAL DATA

Boiling Point (F°): N/A

Specific Gravity (Water=1): N/A

Stability By Weight (%): APPROX. 8%

Weight Per Gallon: (pounds): N/A

Solubility in Water: 86%

pH: N/A

Appearance & Odor: A SOLID, PERFUMED BLOCK IN A PLASTIC HOLDER

IV. FIRE & EXPLOSION HAZARD DATA

Flashpoint (F°) (Method Used): NONE

Extinguishing Media: N/A

Special Fire Fighting Procedures: N/A

Unusual Fire & Explosion Hazards: NONE

V. HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE: MAY BE HARMFUL IF SWALLOWED. DIRECT EYE CONTACT WITH AQUEOUS SOLUTION MAY BE IRRITATING

FIRST AID PROCEDURES:

If Swallowed: CONTACT A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY. TREAT SYMPTOMATICALLY.

If Inhaled: N/A

If in Eyes: FLUSH EYES IMMEDIATELY WITH PLENTY OF COOL WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS, CONTACT A PHYSICIAN.

If On Skin: FLUSH WITH WATER

VI. REACTIVITY DATA

Stability: STABLE

Conditions to Avoid: N/A

INCOMPATIBILITY (Materials to avoid): NONE

Hazardous Decomposition Products: NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR

VII. SPILL OR LEAK PROCEDURES

G S 7 2 4

Steps To Be Taken If Material Is Released Or Spilled: FLUSH WITH WATER.

Waste Disposal Method: FOLLOW ALL FEDERAL, STATE AND LOCAL REGULATIONS REGARDING WASTE DISPOSAL.

Follow All Federal, State and Local Regulations Regarding Waste Disposal

VIII. SPECIAL PROTECTION INFORMATION:

Eye protection and protective gloves are recommended any time your work with any concentrated industrial strength cleaning products.

Respiratory Protection: N/A

Ventilation: N/A

Protective Gloves: OPTIONAL

Eye Protection: N/A

Other Protective Equipment: N/A

IX. SPECIAL PRECAUTIONS:

Precautions To Be Taken In Handling Storage: STORE IN A COOL, DRY PLACE. CAUTION: MAY BE HARMFUL IF SWALLOWED.

OTHER PRECAUTIONS:

HMIS RATING: HEALTH 1

FLAMMABILITY 0

REACTIVITY 0

Read and follow all label directions and precautions before using the product. These products are intended for industrial and institutional use only. Not intended for household use or resale.

KEEP OUT OF THE REACH OF CHILDREN

While we believe that the data contained herein is factual and the opinions expressed are those of qualified experts, the data are not to be taken as a warranty or representation for which the company assumes legal responsibility. They are offered solely for your consideration, investigation, and verification. Any use of these data and information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations.

HEALTH AND SAFETY INFORMATION (216) 861-7114

MAY 1990

SAL 000009583

SANFORD CORPORATION
2740 WASHINGTON BLVD.
BELLWOOD, IL. 60104

Sanford Corporation has been advised by counsel that the OSHA Hazard Communication Standard does not apply to the Sanford product described in this MSDS. The reason for this exemption is contained in 29 CFR Part 1910.1200 (b) (6) (vii) as amended August 24, 1987 per Federal Register Vol. 52, No. 163, p 31877-31878. The information contained in this MSDS is forwarded to you for your information but is not meant to imply that the product is covered by the Hazard Communication Standard nor is the MSDS meant to comply with all requirements of the Hazard Communication Standard.

EMERGENCY TEL: 1-800-228-5635

DATE OF LAST REVISION:

February 1, 1990

CS725

DOCUMENT SEQUENCE NO.:

142-18

1. IDENTIFICATION:

NAME: Expo[®] Cleaner for Dry Erase Surfaces

COLORS: Clear

2. COMPOSITION:

water

isopropanol (67-63-0)

ethylene glycol monobutyl ether (111-76-2)

3. PHYSICAL DATA:

(for isopropanol)

BOILING POINT:

180°F at 760 mm Hg

SPECIFIC GRAVITY:

0.78 at 77°F

VAPOR PRESSURE:

33 mm Hg at 68°F

VAPOR DENSITY:

2.0 (air = 1)

EVAPORATION RATE:

7.7 (ethyl ether = 1)

SOLUBILITY IN WATER:

not available

APPEARANCE/ODOR:

clear liquid/characteristic alcohol odor

FLASH POINT:

105°F (TCC) for mixture

LOWER FLAMMABILITY LIMIT:

2.5% for isopropanol

UPPER FLAMMABILITY LIMIT:

not available

SAL 000009584

4. REACTIVITY:

STABILITY:	stable
POLYMERIZATION:	will not occur
CONDITIONS TO AVOID:	not available
INCOMPATIBLE MATERIALS:	not available
HAZARDOUS DECOMPOSITION PRODUCTS:	not available

5. HEALTH HAZARD DATA:

Neither the product nor any of the ingredients has been found to be a carcinogen or potential carcinogen by NTP, IARC, or OSHA.

The product is considered safe when used under normal use conditions.

The product is an eye irritant. Flush with water if accidental contact occurs. Keep out of reach of children.

6. SAFE HANDLING AND USE PRECAUTIONS:

HANDLING AND STORAGE: Use in a well ventilated area.

CLEAN UP PROCEDURES: Wipe up with absorbent material and discard as solid waste.

WASTE DISPOSAL MEANS: Discard as solid waste.

7. PERSONAL PROTECTION AND EXPOSURE CONTROL MEASURES:

EYE PROTECTION: None under normal use conditions.

SKIN PROTECTION: None under normal use conditions.

RESPIRATORY PROTECTION: None under normal use conditions.

VENTILATION: Use in a well ventilated area.