

# *Chem-Impex International Inc.*

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## SAFETY DATA SHEET

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### SECTION 1. CHEMICAL IDENTIFICATION

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CATALOG #: 34547

NAME: 2-(4-*tert*-Butylbenzyl)propionaldehyde

SYNONYMS: 3-(4-*tert*-Butylphenyl)isobutyraldehyde  
4-*tert*-Butyl- $\alpha$ -methyl-hydrocinnamaldehyde

24 HOUR EMERGENCY TELEPHONE: (800) 535-5053(USA)  
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### SECTION 2. HAZARDS IDENTIFICATION

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#### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

#### GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS)

ACUTE TOXICITY, ORAL (CATEGORY 4), H302  
SKIN IRRITATION (CATEGORY 2), H315  
SKIN SENSITISATION (CATEGORY 1), H317  
REPRODUCTIVE TOXICITY (CATEGORY 2), H361

ACUTE AQUATIC TOXICITY (CATEGORY 2), H401  
CHRONIC AQUATIC TOXICITY (CATEGORY 2), H411

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

**GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS  
PICTOGRAM**



SIGNAL WORD                      WARNING

**HAZARD STATEMENT(S)**

H302                      HARMFUL IF SWALLOWED.  
H315                      CAUSES SKIN IRRITATION.  
H317                      MAY CAUSE AN ALLERGIC SKIN REACTION.  
H361                      SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD.  
H411                      TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.

**PRECAUTIONARY STATEMENT(S)**

P201                      OBTAIN SPECIAL INSTRUCTIONS BEFORE USE.  
P202                      DO NOT HANDLE UNTIL ALL SAFETY PRECAUTIONS HAVE BEEN READ AND UNDERSTOOD.  
P261                      AVOID BREATHING DUST/ FUME/ GAS/ MIST/ VAPOURS/ SPRAY.  
P264                      WASH SKIN THOROUGHLY AFTER HANDLING.  
P270                      DO NOT EAT, DRINK OR SMOKE WHEN USING THIS PRODUCT.  
P272                      CONTAMINATED WORK CLOTHING SHOULD NOT BE ALLOWED OUT OF THE WORKPLACE.  
P273                      AVOID RELEASE TO THE ENVIRONMENT.  
P280                      WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE PROTECTION/ FACE PROTECTION.  
P301 + P312 + P330                      IF SWALLOWED: CALL A POISON CENTER OR DOCTOR/ PHYSICIAN IF YOU FEEL UNWELL. RINSE MOUTH.  
P302 + P352                      IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER.  
P308 + P313                      IF EXPOSED OR CONCERNED: GET MEDICAL ADVICE/ ATTENTION.  
P333 + P313                      IF SKIN IRRITATION OR RASH OCCURS: GET MEDICAL ADVICE/ ATTENTION.  
P362                      TAKE OFF CONTAMINATED CLOTHING AND WASH BEFORE REUSE.  
P391                      COLLECT SPILLAGE.  
P405                      STORE LOCKED UP.  
P501                      DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED WASTE DISPOSAL PLANT.

**HAZARDS NOT  
OTHERWISE  
CLASSIFIED (HNOC)  
OR NOT COVERED  
BY GHS**                      NONE

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

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MF: C<sub>14</sub>H<sub>20</sub>O  
MW: 204.31  
CAS-NO. 80-54-6  
PURITY: 99 - 100% (GC)

**HAZARDOUS COMPONENTS**

COMPONENT	CLASSIFICATION	CONCENTRATION
<b>2-(4-tert-Butylbenzyl)propionaldehyde</b>		
	ACUTE TOX. 4; SKIN IRRIT. 2; SKIN SENS. 1; REPR. 2; AQUATIC ACUTE 2; AQUATIC CHRONIC 2; H302, H315, H317, H361, H411	<= 100 %

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

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**SECTION 4. FIRST-AID MEASURES**

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**DESCRIPTION OF FIRST AID MEASURES**

**GENERAL ADVICE** CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE.MOVE OUT OF DANGEROUS AREA.

**IF INHALED** IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.

**IN CASE OF SKIN CONTACT** WASH OFF WITH SOAP AND PLENTY OF WATER. CONSULT A PHYSICIAN.

**IN CASE OF EYE CONTACT** FLUSH EYES WITH WATER AS A PRECAUTION.

**IF SWALLOWED** NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A PHYSICIAN.

**MOST IMPORTANT SYMPTOMS AND** THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11.

**EFFECTS, BOTH ACUTE  
AND DELAYED**

**INDICATION OF ANY  
IMMEDIATE MEDICAL  
ATTENTION AND  
SPECIAL TREATMENT  
NEEDED** NO DATA AVAILABLE

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**SECTION 5. FIRE AND EXPLOSION DATA**

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**EXTINGUISHING MEDIA**

**SUITABLE  
EXTINGUISHING MEDIA** USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY  
CHEMICAL OR CARBON DIOXIDE.

**SPECIAL HAZARDS  
ARISING FROM THE  
SUBSTANCE OR MIXTURE** CARBON OXIDES

**ADVICE FOR  
FIREFIGHTERS** WEAR SELF-CONTAINED BREATHING APPARATUS FOR  
FIREFIGHTING IF NECESSARY.

**FURTHER INFORMATION** NO DATA AVAILABLE

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

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**PERSONAL  
PRECAUTIONS,  
PROTECTIVE  
EQUIPMENT AND  
EMERGENCY  
PROCEDURES** USE PERSONAL PROTECTIVE EQUIPMENT. AVOID  
BREATHING VAPOURS, MIST OR GAS. ENSURE  
ADEQUATE VENTILATION. EVACUATE PERSONNEL TO  
SAFE AREAS.  
FOR PERSONAL PROTECTION SEE SECTION 8.

**ENVIRONMENTAL  
PRECAUTIONS** PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE  
TO DO SO. DO NOT LET PRODUCT ENTER DRAINS.  
DISCHARGE INTO THE ENVIRONMENT MUST BE  
AVOIDED.

**METHODS AND  
MATERIALS FOR  
CONTAINMENT AND  
CLEANING UP** SOAK UP WITH INERT ABSORBENT MATERIAL AND  
DISPOSE OF AS HAZARDOUS WASTE. KEEP IN  
SUITABLE, CLOSED CONTAINERS FOR DISPOSAL.

**REFERENCE TO OTHER  
SECTIONS** FOR DISPOSAL SEE SECTION 13.

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## **SECTION 7. HANDLING AND STORAGE**

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<b>PRECAUTIONS FOR SAFE HANDLING</b>	AVOID CONTACT WITH SKIN AND EYES. AVOID INHALATION OF VAPOUR OR MIST. FOR PRECAUTIONS SEE SECTION 2.2.
<b>CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES</b>	KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE. CONTAINERS WHICH ARE OPENED MUST BE CAREFULLY RESEALED AND KEPT UPRIGHT TO PREVENT LEAKAGE. AIR SENSITIVE. STORE UNDER INERT GAS  Store at RT
<b>SPECIFIC END USE(S)</b>	APART FROM THE USES MENTIONED IN SECTION 1.2 NO OTHER SPECIFIC USES ARE STIPULATED.

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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### **CONTROL PARAMETERS**

#### **COMPONENTS WITH WORKPLACE CONTROL PARAMETERS**

CONTAINS NO SUBSTANCES WITH OCCUPATIONAL EXPOSURE LIMIT VALUES.

### **EXPOSURE CONTROLS**

<b>APPROPRIATE ENGINEERING CONTROLS</b>	HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICE. WASH HANDS BEFORE BREAKS AND AT THE END OF WORKDAY
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### **PERSONAL PROTECTIVE EQUIPMENT**

<b>EYE/FACE PROTECTION</b>	FACE SHIELD AND SAFETY GLASSES USE EQUIPMENT FOR EYE PROTECTION TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR EN 166(EU).
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<b>SKIN PROTECTION</b>	HANDLE WITH GLOVES. GLOVES MUST BE INSPECTED PRIOR TO USE. USE PROPER GLOVE REMOVAL TECHNIQUE (WITHOUT TOUCHING GLOVE'S OUTER SURFACE) TO AVOID SKIN CONTACT WITH THIS PRODUCT. DISPOSE OF CONTAMINATED GLOVES AFTER USE IN ACCORDANCE WITH APPLICABLE LAWS AND GOOD LABORATORY PRACTICES. WASH AND DRY HANDS.
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<b>BODY PROTECTION</b>	COMPLETE SUIT PROTECTING AGAINST CHEMICALS, THE TYPE OF PROTECTIVE EQUIPMENT MUST BE SELECTED ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE.
<b>RESPIRATORY PROTECTION</b>	WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING RESPIRATORS ARE APPROPRIATE USE A FULL-FACE RESPIRATOR WITH MULTIPURPOSE COMBINATION (US) OR TYPE ABEK (EN 14387) RESPIRATOR CARTRIDGES AS A BACKUP TO ENGINEERING CONTROLS. IF THE RESPIRATOR IS THE SOLE MEANS OF PROTECTION, USE A FULL-FACE SUPPLIED AIR RESPIRATOR. USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN (EU).
<b>CONTROL OF ENVIRONMENTAL EXPOSURE</b>	PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS. DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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### INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Clear, colorless liquid
ODOUR	NO DATA AVAILABLE
ODOUR THRESHOLD	NO DATA AVAILABLE
PH	NO DATA AVAILABLE
MELTING POINT/FREEZING POINT	
INITIAL BOILING POINT AND BOILING RANGE	278 - 280 °C
FLASH POINT	> 93 °C
EVAPORATION RATE	NO DATA AVAILABLE
FLAMMABILITY (SOLID, GAS)	NO DATA AVAILABLE
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	NO DATA AVAILABLE
VAPOUR PRESSURE	NO DATA AVAILABLE
VAPOUR DENSITY	NO DATA AVAILABLE
RELATIVE DENSITY	
WATER SOLUBILITY	CA.0.045 G/L AT 20 °C - OECD TEST GUIDELINE 105 - SLIGHTLY SOLUBLE
PARTITION COEFFICIENT: N- OCTANOL/WATER	LOG POW: 4.73 AT 25 °C
AUTO-IGNITION TEMPERATURE	242 °C AT 1,010 HPA (758 MMHG)
DECOMPOSITION TEMPERATURE	NO DATA AVAILABLE
VISCOSITY	NO DATA AVAILABLE

EXPLOSIVE PROPERTIES NO DATA AVAILABLE  
OXIDIZING PROPERTIES NO DATA AVAILABLE

**OTHER SAFETY INFORMATION**  
NO DATA AVAILABLE

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## **SECTION 10. STABILITY AND REACTIVITY**

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<b>REACTIVITY</b>	NO DATA AVAILABLE
<b>CHEMICAL STABILITY</b>	STABLE UNDER RECOMMENDED STORAGE CONDITIONS.
<b>POSSIBILITY OF HAZARDOUS REACTIONS</b>	NO DATA AVAILABLE
<b>CONDITIONS TO AVOID</b>	NO DATA AVAILABLE
<b>INCOMPATIBLE MATERIALS</b>	STRONG OXIDIZING AGENTS
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	OTHER DECOMPOSITION PRODUCTS - NO DATA AVAILABLE IN THE EVENT OF FIRE: SEE SECTION 5

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

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### **INFORMATION ON TOXICOLOGICAL EFFECTS**

<b>ACUTE TOXICITY</b>	LD50 ORAL - RAT - MALE AND FEMALE - 1,390 MG/KG (OECD TEST GUIDELINE 401)  INHALATION: NO DATA AVAILABLE  LD50 DERMAL - RAT - MALE AND FEMALE - > 2,000 MG/KG (OECD TEST GUIDELINE 402)  NO DATA AVAILABLE
<b>SKIN CORROSION/IRRITATION</b>	SKIN - RABBIT RESULT: SKIN IRRITATION - 4 H (OECD TEST GUIDELINE 404)
<b>SERIOUS EYE DAMAGE/EYE IRRITATION</b>	EYES - RABBIT RESULT: NO EYE IRRITATION

<b>RESPIRATORY OR SKIN SENSITISATION</b>	MAXIMISATION TEST (GPMT) - GUINEA PIG RESULT: MAY CAUSE SENSITISATION BY SKIN CONTACT. (OECD TEST GUIDELINE 406)
<b>GERM CELL MUTAGENICITY</b>	AMES TEST SALMONELLA TYPHIMURIUM RESULT: NEGATIVE  OECD TEST GUIDELINE 474 MOUSE - MALE AND FEMALE RESULT: NEGATIVE
<b>CARCINOGENICITY</b>	
IARC:	NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED HUMAN CARCINOGEN BY IARC.
ACGIH:	NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A CARCINOGEN OR POTENTIAL CARCINOGEN BY ACGIH.
NTP:	NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A KNOWN OR ANTICIPATED CARCINOGEN BY NTP.
OSHA:	NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A CARCINOGEN OR POTENTIAL CARCINOGEN BY OSHA.
<b>REPRODUCTIVE TOXICITY</b>	REPRODUCTIVE TOXICITY - RAT - ORAL PATERNAL EFFECTS: TESTES, EPIDIDYMIS, SPERM DUCT.  SUSPECTED HUMAN REPRODUCTIVE TOXICANT  DEVELOPMENTAL TOXICITY - RABBIT - ORAL SPECIFIC DEVELOPMENTAL ABNORMALITIES: MUSCULOSKELETAL SYSTEM.
<b>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE</b>	NO DATA AVAILABLE
<b>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE</b>	NO DATA AVAILABLE
<b>ASPIRATION HAZARD</b>	NO DATA AVAILABLE



**ADDITIONAL  
INFORMATION**

REPEATED DOSE TOXICITY - RAT - MALE AND  
FEMALE - ORAL - NO OBSERVED ADVERSE EFFECT  
LEVEL - 25 MG/KG

RTECS: MW4895000

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

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**SECTION 12. ECOLOGICAL INFORMATION**

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**TOXICITY**

TOXICITY TO FISH	FLOW-THROUGH TEST LC50 - DANIO RERIO (ZEBRA FISH) - 2.04 MG/L - 96 H (OECD TEST GUIDELINE 203)
TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES	IMMOBILIZATION EC50 - DAPHNIA MAGNA (WATER FLEA) - 9.84 MG/L - 48 H (OECD TEST GUIDELINE 202)
TOXICITY TO ALGAE	GROWTH INHIBITION EC50 - DESMODESMUS SUBSPICATUS (GREEN ALGAE) - CA. 32.5 MG/L - 72 H (OECD TEST GUIDELINE 201)

**PERSISTENCE AND DEGRADABILITY**

BIODEGRADABILITY	AEROBIC - EXPOSURE TIME 28 D RESULT: 80.7 % - READILY BIODEGRADABLE (OECD TEST GUIDELINE 301B)
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**BIOACCUMULATIVE  
POTENTIAL**

NO DATA AVAILABLE

**MOBILITY IN SOIL**

NO DATA AVAILABLE

**RESULTS OF PBT AND  
VPVB ASSESSMENT**

PBT/VPVB ASSESSMENT NOT AVAILABLE AS  
CHEMICAL SAFETY ASSESSMENT NOT  
REQUIRED/NOT CONDUCTED

**OTHER ADVERSE EFFECTS**

AN ENVIRONMENTAL HAZARD CANNOT BE  
EXCLUDED IN THE EVENT OF UNPROFESSIONAL  
HANDLING OR DISPOSAL.  
TOXIC TO AQUATIC LIFE WITH LONG LASTING  
EFFECTS.

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**SECTION 13. DISPOSAL CONSIDERATIONS**

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## WASTE TREATMENT METHODS

<b>PRODUCT</b>	OFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS TO A LICENSED DISPOSAL COMPANY. CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF THIS MATERIAL.
<b>CONTAMINATED PACKAGING</b>	DISPOSE OF AS UNUSED PRODUCT.

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## SECTION 14. TRANSPORT INFORMATION

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<b>DOT (US)</b>	NOT DANGEROUS GOODS
<b>IMDG</b>	
PROPER SHIPPING NAME:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BUTYLPHENYLMETHYLPROPIONAL)
UN NUMBER:	3082
CLASS:	9
PACKING GROUP:	III
EMS-NO:	F-A, S-F
MARINE POLLUTANT:	YES

<b>IATA</b>	
PROPER SHIPPING NAME:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BUTYLPHENYLMETHYLPROPIONAL)
UN NUMBER:	3082
CLASS:	9
PACKING GROUP:	III

### FURTHER INFORMATION

EHS-MARK REQUIRED (IMDG CODE 2.10.3) FOR SINGLE PACKAGINGS AND COMBINATION PACKAGINGS CONTAINING INNER PACKAGINGS WITH DANGEROUS GOODS > 5L FOR LIQUIDS OR > 5KG FOR SOLIDS.

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## SECTION 15. REGULATORY INFORMATION

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<b>SARA 302 COMPONENTS</b>	NO CHEMICALS IN THIS MATERIAL ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III, SECTION 302.
<b>SARA 313 COMPONENTS</b>	THIS MATERIAL DOES NOT CONTAIN ANY CHEMICAL COMPONENTS WITH KNOWN CAS NUMBERS THAT EXCEED THE THRESHOLD (DE MINIMIS) REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313.

### MASSACHUSETTS RIGHT TO KNOW COMPONENTS

NO COMPONENTS ARE SUBJECT TO THE MASSACHUSETTS RIGHT TO KNOW ACT.

**PENNSYLVANIA RIGHT TO KNOW COMPONENTS**

	CAS-NO.	REVISION DATE
2-(4-tert-Butylbenzyl)propionaldehyde	80-54-6	

**NEW JERSEY RIGHT TO KNOW COMPONENTS**

	CAS-NO.	REVISION DATE
2-(4-tert-Butylbenzyl)propionaldehyde	80-54-6	

**CALIFORNIA PROP. 65 COMPONENTS**

THIS PRODUCT DOES NOT CONTAIN ANY CHEMICALS KNOWN TO STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS, OR ANY OTHER REPRODUCTIVE HARM.

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**SECTION 16. OTHER INFORMATION**

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**FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3.**

ACUTE TOX.	ACUTE TOXICITY
AQUATIC ACUTE	ACUTE AQUATIC TOXICITY
AQUATIC CHRONIC	CHRONIC AQUATIC TOXICITY
H302	HARMFUL IF SWALLOWED.
H315	CAUSES SKIN IRRITATION.
H317	MAY CAUSE AN ALLERGIC SKIN REACTION.
H361	SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD.
H401	TOXIC TO AQUATIC LIFE.
H411	TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.
REPR.	REPRODUCTIVE TOXICITY

**HMIS RATING**

HEALTH HAZARD:	2
CHRONIC HEALTH HAZARD:	*
FLAMMABILITY:	1
PHYSICAL HAZARD	0

**NFPA RATING**

HEALTH HAZARD:	2
FIRE HAZARD:	1
REACTIVITY HAZARD:	0

**MSDS LEGEND**

MW:	MOLECULAR WEIGHT
MF:	MOLECULAR FORMULA
VOC:	VOLATILE ORGANIC COMPOUNDS
ACGIH:	AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGINISTS

CAS: CHEMICAL ABSTRACTS SERVICE REGISTRY NUMBER  
OSHA: OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION  
PEL: PERMISSIBLE EXPOSURE LIMIT (OSHA)  
TLV: THRESHOLD LIMIT VALUE (ACGIH)

**IMPORTANT:**

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