

# *Chem-Impex International Inc.*

---

Tel: (630) 766-2112  
E-mail: [sales@chemimpex.com](mailto:sales@chemimpex.com)  
**Shipping and Correspondence:**  
935 Dillon Drive  
Wood Dale, IL 60191 USA

Fax: (630) 766-2218  
Web site: [www.chemimpex.com](http://www.chemimpex.com)  
**Manufacturing site:**  
825 Dillon Drive  
Wood Dale, IL 60191 USA

## SAFETY DATA SHEET

---

### SECTION 1. CHEMICAL IDENTIFICATION

---

CATALOG #:	34073
NAME:	Orange oil
SYNONYMS:	Citrus aurantium Citrus sinensis
24 HOUR EMERGENCY TELEPHONE:	(800) 535-5053(USA) 352-323-3500 (INTERNATIONAL)
TO REQUEST AN MSDS:	(800) 869-9290
CUSTOMER SERVICE:	(630) 766-2112

### SECTION 2. HAZARDS IDENTIFICATION

---

#### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

**GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS)**  
FLAMMABLE LIQUIDS (CATEGORY 3), H226

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)**

H226                                  FLAMMABLE LIQUID AND VAPOUR.

**PRECAUTIONARY STATEMENT(S)**

P210                                  KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES. NO SMOKING.  
P233                                  KEEP CONTAINER TIGHTLY CLOSED.  
P240                                  GROUND/BOND CONTAINER AND RECEIVING EQUIPMENT.  
P241                                  USE EXPLOSION-PROOF ELECTRICAL/ VENTILATING/ LIGHTING EQUIPMENT.  
P242                                  USE ONLY NON-SPARKING TOOLS.  
P243                                  TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGE.  
P280                                  WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE PROTECTION/ FACE PROTECTION.  
P303 + P361 + P353              IF ON SKIN (OR HAIR): REMOVE/ TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/ SHOWER.  
P370 + P378                        IN CASE OF FIRE: USE DRY SAND, DRY CHEMICAL OR ALCOHOL-RESISTANT FOAM TO EXTINGUISH.  
P403 + P235                        STORE IN A WELL-VENTILATED PLACE. KEEP COOL.  
P501                                  DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED WASTE DISPOSAL PLANT.

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

---

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

---

MF:                                      C<sub>14</sub>H<sub>14</sub>O<sub>3</sub>

MW:                                      230.26

CAS-NO.                                8008-57-9

PURITY:

**HAZARDOUS COMPONENTS**

COMPONENT	CLASSIFICATION	CONCENTRATION
Orange oil	FLAM. LIQ. 3; H226	<= 100 %

---

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

---

#### **SECTION 4. FIRST-AID MEASURES**

---

##### **DESCRIPTION OF FIRST AID MEASURES**

<b>GENERAL ADVICE</b>	CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE. MOVE OUT OF DANGEROUS AREA.
<b>IF INHALED</b>	IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.
<b>IN CASE OF SKIN CONTACT</b>	WASH OFF WITH SOAP AND PLENTY OF WATER. CONSULT A PHYSICIAN.
<b>IN CASE OF EYE CONTACT</b>	FLUSH EYES WITH WATER AS A PRECAUTION.
<b>IF SWALLOWED</b>	DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A PHYSICIAN.
<b>MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED</b>	THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11.
<b>INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED</b>	NO DATA AVAILABLE

---

#### **SECTION 5. FIRE AND EXPLOSION DATA**

---

##### **EXTINGUISHING MEDIA**

<b>SUITABLE EXTINGUISHING MEDIA</b>	USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY CHEMICAL OR CARBON DIOXIDE.
<b>SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE</b>	NATURE OF DECOMPOSITION PRODUCTS NOT KNOWN.

**ADVICE FOR  
FIREFIGHTERS**

WEAR SELF CONTAINED BREATHING APPARATUS FOR  
FIREFIGHTING IF NECESSARY.

**FURTHER INFORMATION**

USE WATER SPRAY TO COOL UNOPENED CONTAINERS.

---

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

---

**PERSONAL  
PRECAUTIONS,  
PROTECTIVE  
EQUIPMENT AND  
EMERGENCY  
PROCEDURES**

AVOID BREATHING VAPOURS, MIST OR GAS. REMOVE  
ALL SOURCES OF IGNITION. BEWARE OF VAPOURS  
ACCUMULATING TO FORM EXPLOSIVE  
CONCENTRATIONS. VAPOURS CAN ACCUMULATE IN  
LOW 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.

**METHODS AND  
MATERIALS FOR  
CONTAINMENT AND  
CLEANING UP**

CONTAIN SPILLAGE, AND THEN COLLECT WITH AN  
ELECTRICALLY PROTECTED VACUUM CLEANER OR BY  
WETBRUSHING AND PLACE IN CONTAINER FOR  
DISPOSAL ACCORDING TO LOCAL REGULATIONS (SEE  
SECTION 13).

**REFERENCE TO OTHER  
SECTIONS**

FOR DISPOSAL SEE SECTION 13.

---

**SECTION 7. HANDLING AND STORAGE**

---

**PRECAUTIONS FOR SAFE  
HANDLING**

AVOID INHALATION OF VAPOUR OR MIST.  
KEEP AWAY FROM SOURCES OF IGNITION - NO  
SMOKING. TAKE MEASURES TO PREVENT THE BUILD  
UP OF ELECTROSTATIC CHARGE.  
FOR PRECAUTIONS SEE SECTION 2.2.

**CONDITIONS FOR SAFE  
STORAGE, INCLUDING  
ANY INCOMPATIBILITIES**

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.

Store at RT

**SPECIFIC END USE(S)**

APART FROM THE USES MENTIONED IN SECTION 1.2  
NO OTHER SPECIFIC USES ARE STIPULATED.

---

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

---

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

<b>COMPONENT</b>	<b>CAS-NO.</b>	<b>VALUE</b>	<b>CONTROL PARAMETERS</b>	<b>BASIS</b>
Orange oil	8008-57-9	TWA	10 MG/M3	USA. NIOSH RECOMMENDED EXPOSURE LIMITS
		TWA	5 MG/M3	USA. NIOSH RECOMMENDED EXPOSURE LIMITS

**EXPOSURE CONTROLS****APPROPRIATE  
ENGINEERING  
CONTROLS**

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICE. WASH HANDS BEFORE BREAKS AND AT THE END OF WORKDAY.

**PERSONAL PROTECTIVE EQUIPMENT****EYE/FACE  
PROTECTION**

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).

**SKIN PROTECTION** 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.

FULL CONTACT  
MATERIAL: NITRILE RUBBER  
MINIMUM LAYER THICKNESS: 0.4 MM  
BREAK THROUGH TIME: 480 MIN  
MATERIAL TESTED:CAMATRIL (KCL 730, SIZE M)

SPLASH CONTACT  
MATERIAL: NITRILE RUBBER  
MINIMUM LAYER THICKNESS: 0.2 MM  
BREAK THROUGH TIME: 30 MIN  
MATERIAL TESTED:DERMATRIL P (KCL 743, SIZE M)

IF USED IN SOLUTION, OR MIXED WITH OTHER SUBSTANCES, AND UNDER CONDITIONS WHICH DIFFER FROM EN 374, CONTACT THE SUPPLIER OF THE CE APPROVED GLOVES. THIS RECOMMENDATION IS ADVISORY ONLY AND MUST BE EVALUATED BY AN INDUSTRIAL HYGIENIST AND SAFETY OFFICER FAMILIAR WITH THE SPECIFIC SITUATION OF ANTICIPATED USE BY OUR CUSTOMERS. IT SHOULD NOT BE CONSTRUED AS OFFERING AN APPROVAL FOR ANY SPECIFIC USE SCENARIO.

**BODY PROTECTION** IMPERVIOUS CLOTHING, FLAME RETARDANT ANTISTATIC PROTECTIVE CLOTHING. THE TYPE OF PROTECTIVE EQUIPMENT MUST BE SELECTED ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE.

**RESPIRATORY PROTECTION** WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING RESPIRATORS ARE APPROPRIATE USE A FULLFACE RESPIRATOR WITH MULTI-PURPOSE 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).

**CONTROL OF ENVIRONMENTAL EXPOSURE** PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS.

---

**INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	Clear to slightly hazy, colorless to pale yellow liquid
ODOUR	NO DATA AVAILABLE
ODOUR THRESHOLD	NO DATA AVAILABLE
PH	NO DATA AVAILABLE
MELTING POINT/FREEZING POINT	
INITIAL BOILING POINT AND BOILING RANGE	176 - 178 °C
FLASH POINT	82 °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	0.84
WATER SOLUBILITY	NO DATA AVAILABLE
PARTITION COEFFICIENT: N- OCTANOL/WATER	NO DATA AVAILABLE
AUTO-IGNITION TEMPERATURE	NO DATA AVAILABLE
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

---

**SECTION 10. STABILITY AND REACTIVITY**

---

<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>	HEAT, FLAMES AND SPARKS.
<b>INCOMPATIBLE MATERIALS</b>	STRONG OXIDIZING AGENTS

**HAZARDOUS  
DECOMPOSITION  
PRODUCTS**

HAZARDOUS DECOMPOSITION PRODUCTS FORMED  
UNDER FIRE CONDITIONS. - NATURE OF  
DECOMPOSITION PRODUCTS NOT KNOWN.  
OTHER DECOMPOSITION PRODUCTS - NO DATA  
AVAILABLE  
IN THE EVENT OF FIRE: SEE SECTION 5

---

**SECTION 11. TOXICOLOGICAL INFORMATION**

---

**INFORMATION ON TOXICOLOGICAL EFFECTS**

**ACUTE TOXICITY**

LD50 ORAL - RAT - > 5,000 MG/KG

INHALATION: NO DATA AVAILABLE

LD50 DERMAL - RABBIT - > 5,000 MG/KG

NO DATA AVAILABLE

**SKIN  
CORROSION/IRRITATION**

NO DATA AVAILABLE

**SERIOUS EYE  
DAMAGE/EYE IRRITATION**

NO DATA AVAILABLE

**RESPIRATORY OR SKIN  
SENSITISATION**

NO DATA AVAILABLE

**GERM CELL  
MUTAGENICITY**

NO DATA AVAILABLE

**CARCINOGENICITY**

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.

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 ON  
OSHA S LIST OF REGULATED CARCINOGENS.

**REPRODUCTIVE TOXICITY**

NO DATA AVAILABLE

**SPECIFIC TARGET ORGAN  
TOXICITY - SINGLE  
EXPOSURE**

NO DATA AVAILABLE



<b>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE</b>	NO DATA AVAILABLE
<b>ASPIRATION HAZARD</b>	NO DATA AVAILABLE
<b>ADDITIONAL INFORMATION</b>	RTECS: RI8600000  TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

---

**SECTION 12. ECOLOGICAL INFORMATION**

---

<b>TOXICITY</b>	NO DATA AVAILABLE
<b>PERSISTENCE AND DEGRADABILITY</b>	NO DATA AVAILABLE
<b>BIOACCUMULATIVE POTENTIAL</b>	NO DATA AVAILABLE
<b>MOBILITY IN SOIL</b>	NO DATA AVAILABLE
<b>RESULTS OF PBT AND VPVB ASSESSMENT</b>	PBT/VPVB ASSESSMENT NOT AVAILABLE AS CHEMICAL SAFETY ASSESSMENT NOT REQUIRED/NOT CONDUCTED
<b>OTHER ADVERSE EFFECTS</b>	NO DATA AVAILABLE

---

**SECTION 13. DISPOSAL CONSIDERATIONS**

---

**WASTE TREATMENT METHODS**

<b>PRODUCT</b>	BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS MATERIAL IS HIGHLY FLAMMABLE. OFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS TO A LICENSED DISPOSAL COMPANY.
<b>CONTAMINATED PACKAGING</b>	DISPOSE OF AS UNUSED PRODUCT.

---

**SECTION 14. TRANSPORT INFORMATION**

---

**DOT (US)**

PROPER SHIPPING NAME: FLAMMABLE LIQUID, N.O.S. (Orange oil)  
UN NUMBER: 1993  
CLASS: 3  
PACKING GROUP: III  
REPORTABLE QUANTITY  
(RQ):  
POISON INHALATION HAZARD: NO

**IMDG**

PROPER SHIPPING NAME: FLAMMABLE LIQUID, N.O.S. (Orange oil)  
UN NUMBER: 1993  
CLASS: 3  
PACKING GROUP: III  
EMS-NO: F-E, S-E

**IATA**

PROPER SHIPPING NAME: FLAMMABLE LIQUID, N.O.S. (Orange oil)  
UN NUMBER: 1993  
CLASS: 3  
PACKING GROUP: III

---

**SECTION 15. REGULATORY INFORMATION**

---

**SARA 302 COMPONENTS** NO CHEMICALS IN THIS MATERIAL ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III, SECTION 302.

**SARA 313 COMPONENTS** 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.

**SARA 311/312 HAZARDS** FIRE HAZARD

**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
Orange oil	8008-57-9	08-11-1989

**NEW JERSEY RIGHT TO KNOW COMPONENTS**

	CAS-NO.	REVISION DATE
Orange oil	8008-57-9	08-11-1989

**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.

---

**SECTION 16. OTHER INFORMATION**

---

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

H226 FLAMMABLE LIQUID AND VAPOUR.

MSDS LEGEND

MW: MOLECULAR WEIGHT  
MF: MOLECULAR FORMULA  
VOC: VOLATILE ORGANIC COMPOUNDS  
ACGIH: AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGINISTS  
CAS: CHEMICAL ABSTRACTS SERIVE REGISTRY NUMBER  
OSHA: OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION  
PEL: PERMISSIBLE EXPOSURE LIMIT (OSHA)  
TLV: THRESHOLD LIMIT VALUE (ACGIH)

IMPORTANT:

*THE INFORMATION ABOVE IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST INFORMATION CURRENTLY AVAILABLE TO US. HOWEVER, WE MAKE NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO SUCH INFORMATION, AND WE ASSUME NO LIABILITY RESULTING FROM ITS USE. USERS SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION FOR THEIR PARTICULAR PURPOSES. IN NO EVENT SHALL **CII** BE LIABLE FOR ANY CLAIMS, LOSSES, OR DAMAGES OF ANY THIRD PARTY OR FOR LOST PROFITS OR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES, HOWSOEVER ARISING, EVEN IF **CII** HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.*

VERSION: 3.1.

REVISION DATE: 01/27/2017