


Natro-Flex™ IOT

1: Identification

Product identifier:	Natro-Flex™ IOT	
Other means of identification:	Isooctyl ester of tall oil fatty acids on silicon dioxide	
Supplier:		NATROCHEM, Inc. P.O. Box 1205 Savannah, GA 31402-1205 912-236-4464
Recommended use:	Rubber plasticizer	
Restrictions on use:	Not applicable.	
Emergency phone number:	CHEMTREC (USA)	800-424-9300
	CHEMTREC (Int'l)	202-483-7616

2: Hazard(s) identification

OSHA/HCS status:	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
GHS classification:	Not classified.

GHS label elements

Signal word:	None.
Symbol(s):	None.
Hazard statements:	None.
Hazards not otherwise classified:	None.
Precautionary statements:	
Prevention:	Avoid breathing fume/ gas/mist/vapours/spray.
Response:	IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. IF exposed or concerned: Call a POISON CENTER/doctor. In case of fire: Use appropriate media for surrounding fire to extinguish.
Storage:	Store in a dry place. Store in a closed container.
Disposal:	Dispose of contents/container in accordance with local/regional/national/international regulations.
Supplemental information:	Not applicable.

3: Composition

Substance/mixture: Substance

Ingredient	Synonyms	CAS number	Concentration (%)
Tall oil, fatty acids, isooctyl esters	Isooctyl tallate, IOT	68333-78-8	100

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

4: First-aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM, OR PHYSICIAN immediately; have SDS information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact:	Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
Inhalation:	Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular, or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact:	Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
Ingestion:	If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed.

Potential acute health effects

Eye contact:	No known significant effects or critical hazards.
Inhalation:	No known significant effects or critical hazards.
Skin contact:	No known significant effects or critical hazards.
Ingestion:	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact:	No specific data.
Inhalation:	No specific data.
Skin contact:	No specific data.
Ingestion:	No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments:	No specific treatment.
Protection of first-aiders:	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media:	None known.
Specific hazards arising from the chemical:	No information available.
Hazardous thermal decomposition products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Special protective actions for firefighters:	No action shall be taken involving any personal risk or without proper training.
Special protective equipment for firefighters:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6: Accidental release measures

Personal precautions, protective equipment, and emergency procedures

For non-emergency personnel:	No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Product forms slippery surface when combined with water.
For emergency responders:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information immediately above in "For non-emergency personnel".
Environmental precautions:	Avoid release to sewers, waterways, soil, or air. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

Methods and materials for containment and cleaning up

Small spill:	Vacuum or sweep up material and place in a designated, labeled waste container.
Large spill:	Vacuum or sweep up material and place in a designated, labeled

waste container.

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

7: Handling and storage

Precautions for safe handling

Protective measures:

Put on appropriate personal protective equipment (see **Section 8**).

Advice on general

Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

occupational hygiene:

See also **Section 8** for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities:

Store in accordance with local regulations. Store in original container in a dry, cool, and well-ventilated area away from incompatible materials (see **Section 10**) and food and drink. Keep container tightly closed and sealed until ready for use. Do not store in unlabeled containers.

8: Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Recommended monitoring procedures:

If this product contains ingredients with exposure limits, personal, workplace atmosphere, or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Appropriate engineering controls:

Emissions from ventilation or work process equipment should be checked to ensure that they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters, or engineering modifications to process equipment will be necessary to reduce emissions to acceptable levels.

Environmental exposure controls:

Individual protection measures

Hygiene measures:

Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory, and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: splash goggles.
<u>Skin protection</u>	
Hand protection:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. When handling hot material, wear heat-resistant gloves that are able to withstand the temperature of molten product.
Body protection:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection:	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

9: Physical and chemical properties

Appearance

Physical state:	Liquid
Color:	Yellow
Odor:	Mild.
Odor threshold:	Not available.
pH:	Not available.
Melting/freezing point:	Not available.
Boiling point and range:	>315°C
Flash point:	227°C
Evaporation rate:	Not available.
Flammability:	Not available.
Flammability or explosive limits:	Not available.
Vapor pressure:	Not available.
Vapor density:	Not available.
Relative density:	0.87
Solubility:	negligible
Partition coefficient: n-octanol/water:	Not available.
Auto-ignition temperature:	Not available.

Decomposition temperature: Not available.
Viscosity: Not applicable.

10: Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability: This product is stable.

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid: Temperature extremes and direct sunlight.
Refer to protective measures listed in **Sections 7 and 8**.

Incompatible materials: None known.

Hazardous decomposition products: None known.

11: Toxicological information

Information on toxicological effects

Acute toxicity

Conclusion/summary: No data available.

Irritation/corrosion

Conclusion/summary: No data available.

Sensitization

Conclusion/summary: No data available.

Mutagenicity:

Conclusion/summary: No data available.

Carcinogenicity

Conclusion/summary: No data available.

Reproductive toxicity

Conclusion/summary: No data available.

Teratogenicity

Conclusion/summary: No data available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure: Routes of entry anticipated: oral, dermal, inhalation.

Potential acute health effects

Eye contact: No data available.

Inhalation: No data available.

Skin contact: No data available.

Ingestion: No data available.

Symptoms related to the physical, chemical, and toxicological characteristics

Eye contact:	No data available.
Inhalation:	No data available.
Skin contact:	No data available.
Ingestion:	No data available.

Delayed and immediate effects and also chronic effects from short- and long-term exposure

Conclusion/summary: No data available.

Short-term exposure

Potential immediate effects No data available.

Potential delayed effects No data available.

Long-term exposure

Potential immediate effects No data available.

Potential delayed effects No data available.

Potential chronic health effects

General: No data available.

Carcinogenicity: No data available.

Mutagenicity: No data available.

Teratogenicity: No data available.

Developmental effects: No data available.

Fertility effects: No data available.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

12: Ecological information

Toxicity

No data available.

Persistence and degradability

No data available.

Bioaccumulative potential

No data available.

Mobility in soil

Soil/water partition coefficient (K_{oc}): Not available.

Other adverse effects: No data available.

13: Disposal considerations

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions, and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Refer to Sections 6, 7, and 8 for additional information on accidental release measures, handling and storage, and exposure controls.

14: Transport information

	DOT	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.
Additional information	-	-	-

Special precautions for user:

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:

Not available.

15: Regulatory information

Inventory status

United States inventory (TSCA 8b): All components are listed or exempted.

Australia inventory (AICS): All components are listed or exempted.

Canada inventory (DSL): All components are listed or exempted.

Europe inventory (REACH): All components are listed or exempted.

Japan inventory (ENCS): All components are listed or exempted.

Korea inventory (KECI): All components are listed or exempted.

Philippines inventory (PICCS): All components are listed or exempted.

United States

US Federal regulations:

SARA Title III

Section 302 – Extremely Hazardous Chemicals:

The components in this product are either not SARA Section 302 regulated or are regulated but present in negligible concentrations.

Section 311/312 – Hazard Categories:

The components in this product are either not SARA Section 311/312 regulated or are regulated but present in negligible concentrations.

Section 313 – Toxic Chemicals:

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.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – Reportable Quantity (RQ)

The components of this product are either not CERCLA regulated, regulated but present in negligible concentrations, or regulated with no assigned reportable quantity.

US State regulations:**California Prop. 65:**

No components are subject to California Prop. 65.

16: Other information**Hazardous Material Identification System (USA)**

HEALTH	1
FLAMMABILITY	0
REACTIVITY	0

PERSONAL PROTECTION

* - chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1901.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J.J.Keller 800-327-6868.

The customer is responsible for determining the PPE code for this material.

Key to abbreviations:

ATE	Acute toxicity estimate
BCF	Bioconcentration factor
GHS	Globally harmonized system of classification and labeling of chemicals
IATA	International Air Transport Association
IBC	Intermediate bulk container
IMDG	International Maritime Dangerous Goods
LogPow	Logarithm of the octanol/water partition coefficient
MARPOL 73/78	International convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978. (MARPOL = marine pollution)
UN	United Nations

Disclaimer:

The information and recommendations contained herein are based upon data that are believed to be accurate and reliable. However, since data, safety standards, and government regulations are subject

to change and the conditions of handling and use, or misuse are beyond our control, Natrochem, Inc. makes no warranty express or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon.

Application and performance information are provided only as a guide, since the conditions of use are beyond the control of Natrochem, Inc. Consequently, Natrochem makes no warranties, express or implied, with respect to the goods or use of the goods or the performance of the goods and makes no warranties of fitness for a particular purpose for merchantability. Buyer acknowledges that Natrochem will not be liable for consequential, incidental, direct or special damages arising directly or indirectly in respect to such goods or the use or failure thereof, whether based on breach of warranty, negligence, strict liability in tort or otherwise.