

Revision Number 2

Revision date 12-Aug-2015

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier

Product Code

TAK-041860

Product name

INTENSATES (R) NATURAL FLAVOR MODIFIER (ACID BLOCKER)

Other means of identification

Synonyms

No information available

Recommended use of the chemical and restrictions on use

Recommended use

Flavor compound

Concentrated aromatic raw material intended for manufacturing use

Not intended for personal use at this concentration

Details of the Supplier of the Safety Data Sheet

Supplier Address

Takasago International Corporation (USA)

4 Volvo Drive

Rockleigh, NJ 07647 USA

Phone: 1-201-767-9001

Emergency Telephone Number

Company Phone Number

Health & Environmental: 1-201-767-9001 9 a.m - 5 p.m. EST M-F

Emergency Telephone Number

CHEMTREC: 1-800-424-9300 24 hours Everyday

CHEMTREC (International): 01-703-527-3887 [U.S.A.] 24 hours Everyday

2. Hazard identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 2A
Flammable liquids	Category 2

Label Elements

Danger

Hazard Statements

Causes serious eye irritation

Highly flammable liquid and vapor



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/./? /equipment
Use only non-sparking tools
Take precautionary measures against static discharge

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)

None known

Other Information

Other Hazards	None known
Unknown acute toxicity	No information available

3. Composition/information on Ingredients

Hazardous components	The identity of the individual components of this mixture is proprietary information and is regarded to be a trade secret. It is withheld in accordance with the provisions of 29 CFR 1910.1200.
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4. First aid measures

FIRST AID MEASURES

General advice	When in doubt or if symptoms are observed, get medical advice.
Inhalation	Remove casualty to fresh air and keep warm and at rest. In case of respiratory tract irritation, consult a physician.
Skin Contact	Change contaminated, saturated clothing. After contact with skin, wash immediately with plenty of water and soap. In case of skin reactions, consult a physician.
Eye contact	In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.
Ingestion	If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting.
Self-protection of the first aider	Use personal protection recommended in Section 8.

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms	No known symptoms to date.
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Indication of Any Immediate Medical Attention and Special Treatment Needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media

Foam. Carbon dioxide (CO₂). Dry extinguishing powder.

Large Fire Alcohol resistant foam. Water spray.

Unsuitable extinguishing media Full water jet.

Specific hazards

In case of fire may be liberated, Carbon monoxide, Carbon dioxide (CO₂), Burning produces heavy smoke, Do not inhale explosion and combustion gases.

Protective equipment and precautions for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Use water spray jet to protect personnel and to cool endangered containers. Move undamaged containers from immediate hazard area if it can be done safely. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8. Remove all sources of ignition. Provide adequate ventilation as well as local exhaustion at critical locations. See section 7 for more information.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Ensure waste is collected and contained.

Methods and material for containment and cleaning up

Methods for cleaning up Clean contaminated surface thoroughly.

7. Handling and Storage

Precautions for Safe Handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Wear protective gloves and eye/face protection. See Section 8 for information on appropriate personal protective equipment. Remove all sources of ignition. Provide adequate ventilation as well as local exhaustion at critical locations. Handle and open container with care.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a cool, well-ventilated place. Store in a dry place. Protect from direct sunlight. Remove all sources of ignition. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

8. Exposure Controls/Personal Protection

Control Parameters

Exposure guidelines

This product contain(s) the following substance(s) with occupational exposure limits established by OSHA under 29 CFR 1910 subpart Z, ACGIH or NIOSH.

	ACGIH OEL	OSHA PEL	NIOSH IDLH
ETHANOL 64-17-5	1000 PPM (STEL)	1900 MGM3 1000 PPM (TWA)	3300 PPM

Appropriate Engineering Controls

Engineering Controls

Provide adequate ventilation as well as local exhaust at critical locations. Do not subject to unnecessarily high temperatures during processing.

Individual protection measures, such as personal protective equipment

Eye/face protection

Eye glasses with side protection.

Hand Protection

Wear chemically resistant gloves in combination with 'basic' employee training.

Skin and body protection

Wear appropriate personal protective clothing to prevent skin contact.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and after work. Do not eat, drink or smoke when using this product.

FEMA Statement

This product contains substance(s) at $\geq 1.0\%$ listed as Low Priority in Table 1 of the Flavor and Extract Manufacturers Association of the United States Respiratory Health and Safety in the Flavor Manufacturing Workplace (2012 edition)

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	clear liquid
Color	Colorless to Faint Yellow
Odor	Characteristic
Odor threshold	No data available

Property

VALUES

Remarks • Method

pH	No data available	
Melting point / freezing point	No data available	
Boiling point / boiling range	> 35.1 °C / 95 °F	
Flash Point	18.9 °C / 66.0 °F	
Evaporation rate	No data available	
Flammability (solid, gas)	No data available	
Flammability Limit in Air		
Upper Flammability Limit	No data available	
Lower Flammability Limit	No data available	
Vapor pressure	No data available	
Vapor Density	No data available	
Relative Density	0.916-0.936 @ 25 °C	
Relative Density	No data available	
Water Solubility	No data available	
Solubility in Other Solvents	No data available	
Partition coefficient	No data available	
Autoignition Temperature	No data available	
Decomposition temperature	No data available	
Kinematic viscosity	No data available	
Dynamic viscosity	No data available	

Explosive Properties No data available
Oxidizing Properties No data available

Other Information

Refractive Index 1.395-1.405 @ 20 °C

10. Stability and Reactivity

Reactivity

None under normal use conditions.

Chemical Stability

Stable under normal conditions. Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to Avoid

Extremes of temperature and direct sunlight. Do not heat closed containers.

Incompatible Materials

Strong oxidizing agents. Strong acids. Strong bases.

Hazardous Decomposition Products

None under normal use.

11. Toxicological Information

Information on Likely Routes of Exposure

Product Information	No data available.
Inhalation	No data available.
Eye contact	No data available.
Skin Contact	No data available.
Ingestion	No data available.

Information on Toxicological Effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Mutagenic effects	No information available.
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
Reproductive Toxicity	No information available.
STOT - single exposure	No information available.
STOT - Repeated Exposure	No information available.
Aspiration Hazard	No information available.

Numerical Measures of Toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	11111 mg/kg
ATEmix (dermal)	20453 mg/kg

ATEmix (inhalation-dust/mist) 0.1

12. Ecological Information

Ecotoxicity No information available
Persistence and Degradability No information available.
Bioaccumulation No information available
Other Adverse Effects No information available

13. Disposal Considerations

Waste Treatment Methods

Waste disposal method Dispose of in accordance with local regulations.
Contaminated Packaging Do not reuse container.

14. Transport Information

DOT Non-bulk Packaging

UN/ID no 1197
Proper Shipping Name Extracts, flavoring, liquid
Hazard class 3
Packing group II
Marine Pollutant Not applicable

Air transport

UN/ID no 1197
Proper Shipping Name Extracts, flavoring, liquid
Hazard class 3
Packing group II

IMDG/IMO

UN/ID no 1197
Proper Shipping Name Extracts, flavoring, liquid
Hazard class 3
Packing group II
EmS No F-E, S-D
Marine Pollutant Not applicable

15. Regulatory Information

Federal Regulations

SARA 313

This propriety mixture does not contain any chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372

SARA 311/312 Hazardous Categorization

Acute health hazard Yes
Chronic health hazard No
Fire hazard Yes

Product Code TAK-041860
Product name INTENSATES (R) NATURAL FLAVOR
MODIFIER (ACID BLOCKER)

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Sudden release of pressure hazard
Reactive Hazard

No
No

16. Other Information

Revision date 12-Aug-2015

Disclaimer

The information in this MSDS was obtained from current and reputable sources. However, the data is provided without any warranty, express or implied regarding its accuracy. Where the handling, storage and disposal of this material is beyond the immediate control of Takasago International Corporation, it shall be the user's responsibility to determine safe conditions for the use of this product. The user assumes all liability for loss, injury damage or expense resulting from the improper use of this product.

End of Safety Data Sheet