

## 1. Identification of the Substance/Mixture and of the Company/Undertaking

- |  |  |
|--|--|
| <b>1.1 Product identifier</b>  | GAT-05 、 GAT-10<br>SDS No.: GTUS-17-01   |
| <b>1.2 Relevant identified uses of the substance or mixture and uses advised against</b> | Protective cover<br>Uses advised against: some medical- and food-related applications, see Section 16 for further information.   |
| <b>1.3 Details of the supplier of the safety data sheet</b>                              | Importer/Distributor<br>IRISS Inc.<br>10306 Technology Terrace<br>Bradenton, Florida USA 34211<br><br>Supplier :<br>Asahi Kasei Advance Corporation<br>Chemicals and Plastics Dept.<br>Sumitomo Fudosan Onarimon-ekimae Bldg.,<br>6-17-21 Shimbashi,Minato-ku, Tokyo, 105-0004<br>Tel: +81-3-5404-5045; Fax: +81-3-5404-5059 |
| <b>1.4 Emergency telephone number</b>  | 941-907-9128   |

## 2. Hazards Identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008      Not classified

Classification according to Directive 1999/45/EC      Not classified

### 2.2 Label elements

Pictogram      None

Hazard statements      None

Precautionary statements      None

Supplemental information      None

### 2.3 Other hazards

The product may burn when exposed to constant flame or heat. Heated polymer can cause severe thermal burns. Processing fumes may cause irritation to eye, skin or respiratory tract, and nausea and headache.

## 3. Composition/Information on Ingredients

### 3.1 Substances

Chemical Name	1-Butene, polymer with ethene
Wt%	More than 99%
	Additives are added, if necessary.
Chemical Formula	$-(\text{CH}_2-\text{CH})_n-(\text{CH}_2-\text{CH}_2)_m-$   CH <sub>2</sub> CH <sub>3</sub>
CAS Registry No.	25087-34-7
OSHA HAZARDS INGREDIENTS (29 CFR 1910.1200)	None

## 4. First Aid Measures

### 4.1 Description of first aid measures

Inhalation	Not applicable
Skin	Not applicable

## SAFETY DATA SHEET

Eye	For eye contact with the product, flush with water, and get medical attention if signs of irritation occur. For processing fume irritation, do not rub eye(s) to prevent further irritation and damage to cornea(s). Immediately flush with plenty of water. After initial flushing, remove any contact lens and continue flushing for at least 15-20 minutes. Have eye(s) examined and tested by medical personnel.
Ingestion	Not likely route of exposure. If swallowed, get medical attention.
<b>4.2 Most important symptoms and effects, both acute and delayed</b>	Heated polymer can cause severe thermal burns. Processing fumes may cause irritation to eye, skin or respiratory tract, and nausea and headache. Extended exposure to heated product fumes may cause some loss of lung capacity.
<b>4.3 Indication of any immediate medical attention and special treatment needed</b>	Treat symptoms as they occur.

### 5. Fire Fighting Measures

#### 5.1 Extinguishing media

Suitable Water, foam or dry chemicals. Water spray is the best extinguishing media.

Unsuitable None

#### 5.2 Special hazards arising from the substance or mixture

The product is not classified as flammable, but will burn if involved in a fire, producing intense heat, dense black smoke, and toxic fumes, gases or vapours.

#### 5.3 Advice for firefighters

Remove containers from fire or cool them with water spray. Approved pressure-demand breathing apparatus and protective clothing must be used for all fires.

### 6. Accidental Release Measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

To prevent the danger of slipping and falling, collect the product and place it in a proper container for disposal or recycling. Wear gloves to prevent skin contact.

#### 6.2 Environmental

The product should be prevented from contaminating soil or

## SAFETY DATA SHEET

<b>precautions</b>	from entering sewage, drainage systems, and bodies of water.
<b>6.3 Methods and material for containment and cleaning up</b>	Carefully sweep up or collect using vacuum cleaner. Collect spill and place in suitable container for disposal. Wash contaminated surfaces with water, and collect washings for safe disposal.
<b>6.4 Reference to other sections</b>	For recommended personal protective equipment, see Section 8. For disposal considerations, see Section 13.

### 7. Handling and Storage

<b>7.1 Precautions for safe handling</b>	For processes where frictional electrostatic charge may be produced, take preventative measures such as grounding. Do not touch heated product directly. Avoid fire, as it is combustible. Do not put the product together with cloth containing oil. Take care during lifting, as the product is heavy.
<b>7.2 Conditions for safe storage, including any incompatibilities</b>	Keep away from direct sunlight, heat, humidity, ignition sources and store inside the warehouse. Do not use fire in the warehouse. Keep product away from electrostatic charge. The containers and the wrapping materials must not be re-used.
<b>7.3 Specific end use(s)</b>	Not available

### 8. Exposure Controls/Personal Protection

<b>8.1 Control parameters</b>	
EU limit values	Not available
UK limit values	Not available
Other: human health (DNELs, DMELs)	Not available
Other: environmental (PNEC)	Not available
<b>8.2 Exposure Guidelines</b>	Not available
<b>8.3 Exposure controls</b>	

## SAFETY DATA SHEET

Engineering controls	If fume or dust is generated in a work area, provide local exhaust ventilation.
Personal protective equipment	The need for personal protective equipment should be based on a workplace risk assessment for the particular use. PPE should be to European (EN) standards. Consult manufacturers concerning breakthrough times.  <b>Eye/Face protection:</b> Wear safety glasses or goggles while using or handling the product.  <b>Hand protection:</b> Gloves (eg nitrile rubber) are recommended while handling the product. During melt processing, wear gloves(EN407) to protect against thermal burns.  <b>Body protection:</b> Personal protective clothing with antistatic treatment is recommended.  <b>Respiratory protection:</b> When fumes are not adequately controlled while processing, use appropriate respirator for protection from organic vapors.
Environmental exposure controls	Not available

### 9. Physical and Chemical Properties

#### 9.1 Information on basic physical and chemical properties

Appearance	Translucent sheet	
Odour	None	
Odour threshold	Not available	
pH	Not applicable	
Melting/freezing point	120-130°C	
Initial boiling point/range	Not available	
Flash point	341-357°C	(Ref.1)
Evaporation rate	Not available	

## SAFETY DATA SHEET

Flammability (solid, gas)	Not applicable	
Flamm. or expl. Limits	Not available	
Vapour pressure	Not available	
Vapour density	Not available	
Relative density	930-950 kg/m <sup>3</sup>	
Solubilities	Insoluble in water	
Partition coeff. (K <sub>ow</sub> )	Not available	
Auto-ignition temp.	400°C (Average particle size = 24 µm) 440°C (Average particle size = 105 µm)	(Ref.2)
Decomposition temp.	335-450°C	(Ref.1)
Viscosity	Not available	
Explosive properties	Not applicable	
Oxidizing properties	Not applicable	
<b>9.2 Other information</b>	Not applicable	

### 10. Stability and Reactivity

<b>10.1 Reactivity</b>	Not applicable
<b>10.2 Chemical stability</b>	Stable under recommended conditions of storage
<b>10.3 Possibility of hazardous reactions</b>	No hazardous polymerization
<b>10.4 Conditions to avoid</b>	Avoid direct sunlight, heat, humidity, sparks and flame.
<b>10.5 Incompatible materials</b>	Avoid contact with oxidizing materials.
<b>10.6 Hazardous decomposition products</b>	Decomposition products may include and are not limited to carbon dioxide, carbon monoxide, and other hydrocarbon oxidation products. Inhalation of these decomposition products may be hazardous.

### 11. Toxicological Information

<b>11.1 Information on toxicological effects</b>	
Acute toxicity	Rats which were fed 7.95 g/kg showed no toxic reaction and gained weight normally. (Ref.3)
Skin corrosion/irritation	The product is not considered a primary skin irritant.

## SAFETY DATA SHEET

	Gas generated during drying and heating may irritate skin.
Serious eye damage/irritation	The product is not considered a primary eye irritant. May cause irritation or injury due to mechanical action. Gas generated during drying and heating may irritate eyes.
Respiratory or skin sensitisation	Not classified due to lack of data.
Germ cell mutagenicity	Not classified due to lack of data.
Carcinogenicity	NTP: Not tested OSHA: Not regulated IARC: Listed in Group 3. (Not classifiable as to carcinogenicity to humans) (Ref.4)
Reproductive toxicity	Not classified due to lack of data.
STOT-single exposure	Not classified due to lack of data.
STOT-repeated exposure	Not classified due to lack of data.
Aspiration hazard	Not classified due to lack of data.

### 12. Ecological Information

<b>12.1 Toxicity</b>	Not expected to be acutely harmful. If pellets is ingested by waterfowl or aquatic life, may mechanically cause adverse effects.
<b>12.2 Persistence and degradability</b>	Not expected to biodegrade. May cause long-term adverse effects in the aquatic environment.
<b>12.3 Bioaccumulative potential</b>	Not available
<b>12.4 Mobility in soil</b>	Not available
<b>12.5 Results of PBT and vPvB assessment</b>	Not available
<b>12.6 Other adverse effects</b>	Never dump or discharge this substance into ocean or any other body of water. Marine life or birds may ingest them.

### 13. Disposal Considerations

<b>13.1 Waste treatment methods</b>	The recommended method of disposal is incineration. Use a licensed waste disposal contractor. Comply with all federal, state and local regulations. Chemical residues
-------------------------------------	---

**SAFETY DATA SHEET**

generally count as special waste.

Do not dump this product into sewers, on the ground or into any body of water.

<b>14. Transport Information</b>
----------------------------------

<b>14.1 UN Number</b>	Not classified as dangerous goods according to UN criteria.
<b>14.2 UN proper shipping name</b>	Not applicable
<b>14.3 Transport hazard class(es)</b>	Not applicable
<b>14.4 Packing group</b>	Not applicable
<b>14.5 Environmental hazards</b>	Not classified as environmentally hazardous.
<b>14.6 Special precautions for user</b>	Avoid water, direct sunlight, and careless handling to prevent damage to the container.
<b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable

<b>15. Regulatory Information</b>
-----------------------------------

United States

OSHA	These products are not hazardous as defined by the OSHS HAZARD COMMUNICATION STANDARD ( 29 CFR 1910.1200)
TSCA	All ingredients are on the TSCA inventory.
CERCLA/SUPERFUND (40 CFR 117,302)	These products contain no Reportable Quantity (RQ) Substances.
SARA HAZARD CATEGORY	These products have been reviewed according to the EPA Hazard Categories promulgated under SECTION 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the Following categories: Not to have met any hazard category.
SARA 313 INFORMATION	None



**SAFETY DATA SHEET**

---

SECTION 313(40 CFR 372)

U.S. STATE REGULATIONS

California	Not listed
Massachusetts	Not listed
New Jersey	Not listed
Pennsylvania	Not listed
Rhode Island	Not listed

EU

(EC) 1272/2008 Annex VI table-3.1	Not listed
(EC) 1272/2008 Annex VI table-3.2	Not listed
67/548/EEC	Not classified
REACH Annex XVII	Not applicable
SVHC (REACH)	Dose not contains more than limit value.
ELV (2000/53/EC)	Dose not contains more than limit value.
RoHS (2002/95/EC)	Dose not contains more than limit value.

<b>16. Other Information</b>
------------------------------

Abbreviations	DNEL, derived no-effect level; DMEL, derived minimum effect level; PPE, personal protective equipment; LD, lethal dose; PBT, persistent, bioaccumulative, and toxic; STOT, specific target organ toxicity; vPvB, very persistent, very bioaccumulative.
References	This SDS has been prepared to the standards and guidelines presented in ANSI <sup>®</sup> Z400.1. Supplier safety data sheets. 1) Flammability Handbook for Plastics : Carlos J. Hilado (1969) 2) SAFETY DOCUMENT OF RESAERCH INSTITUTE OF INDUSTRIAL SAFETY RIIS-SD-90-1, 1990 3) PLASTICS, Vol.26, No.3, P.20 4) Agents Classified by IARC Monographs, Volumes 1-

## SAFETY DATA SHEET

---

102 Last update: 17 June 2011

List of R-phrases	Not applicable
List of hazard statements	Not applicable
Training advice	None

### *Restrictions on use:*

The product must not be used in any medical device or other medical application which may involve:

- Implantation in the human body.
- Continuous contact for 30 days or longer with the human body or with human blood or body fluids.

Regarding use of the product in any medical devices or medical applications other than the above, please contact:

Asahi Kasei Advance Corporation ("AKA")  
Chemicals and Plastics Dept.  
Sumitomo Fudosan Onarimon-ekimae Bldg.,  
6-17-21 Shimbashi,Minato-ku, Tokyo, 105-0004  
Tel: +81-3-5404-5045; Fax: +81-3-5404-5059  
E-mail: aka\_plastics@om.asahi-kasei.co.jp

For any use of the product in food-container, food-wrapping, or other food-related applications, the user must determine its suitability for use in the end product under the relevant legal, regulatory, and other standards and restrictions in effect in the nation, province, and locale of the actual end use. AKA will, on request from the user of the product, provide available information relating to suitability for such applications.

The product must not be used in any medical- or food-related applications, without the advance consent of AKA, which shall not in any event bear any obligation, responsibility, or liability of any nature in the event of loss, injury, or damage relating to or arising from such use of the product. It is the responsibility of the user, in relation to the above-described or any other use of the product, to determine:

- Accordance with applicable laws, regulations, and restrictions
- Safety and satisfaction of the requirement of the application

The user must investigate and determine the safety of the use of any chemical substances or additives with the product.

*Disclaimer:* The information furnished in this Safety Data Sheet(SDS) is accurate to the best knowledge of AKA as of the date of its publication.

This SDS is not intended to create any liability of any kind on the part of AKA.

---

In no event will AKA be responsible for any death, injury, or damage of any nature resulting from the use of, reliance upon, or misuse of this SDS or the product to which it refers. The data on this sheet relates only to the specific product designated herein. No representations or warranties, whether express or implied, of merchantability, fitness for particular purpose, or any other nature, are made hereunder.

This SDS is not intended as a recommendation for uses that infringe valid patents or extend licenses under valid patents.

For further information, please contact AKA at the address, telephone number, and e-mail address listed on this sheet.