SAFETY DATA SHEET



Date of issue/Date of revision25 September 2014Version 1

Section 1. Identification		
Product name	: ORANGE FLASH	
Product code	: T4040	
Other means of identification	: Not available.	
Product type	: Liquid.	
Relevant identified uses of	f the substance or mixture and uses advised against	
Product use	: Industrial applications.	
Use of the substance/ mixture	: Coating.	
Uses advised against	: Not applicable.	
Supplier	: PPG Industries, Inc. One PPG Place, Pittsburgh, PA 15272	
Emergency telephone number	: (412) 434-4515 (U.S.) (514) 645-1320 (Canada) 01-800-00-21-400 (Mexico)	
Technical Phone Number	: 1-800-647-6050	

Section 2. Hazards identification

OSHA/HCS status	 This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	: SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
	Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 2.2%
GHS label elements	
Hazard pictograms	
Signal word	: Warning
Hazard statements	: Causes serious eye irritation. May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

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Product name ORANGE FLASH

Section 2. Hazards identification

Prevention	: Wear eye or face protection. Do not breathe vapor. Wash hands thoroughly after handling.
Response	: Get medical attention if you feel unwell. 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 attention.
Storage	: Not applicable.
Disposal	 Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Emits toxic fumes when heated. DANGER - RAGS, STEEL WOOL OR WASTE SOAKED WITH THIS PRODUCT MAY SPONTANEOUSLY CATCH FIRE IF IMPROPERLY DISCARDED. IMMEDIATELY AFTER EACH USE, PLACE RAGS, STEEL WOOL OR WASTE IN A SEALED WATER-FILLED METAL CONTAINER.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Product name	: ORANGE FLASH

Ingredient name	%	CAS number
2-butoxyethanol	5 - 10	111-76-2
Aluminium powder (stabilized)	1 - 5	7429-90-5
Isopropyl alcohol	1 - 5	67-63-0

SUB codes represent substances without registered CAS Numbers.

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.

Section 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 Safety Data Sheet 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.

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Section 4. First aid measures 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. If swallowed, seek medical advice immediately and show this container or label. Keep Ingestion 2 person warm and at rest. Do NOT induce vomiting. Most important symptoms/effects, acute and delayed Potential acute health effects Eye contact : Causes serious eye irritation. Inhalation : No known significant effects or critical hazards. Skin contact : No known significant effects or critical hazards. Ingestion : Irritating to mouth, throat and stomach. Over-exposure signs/symptoms Eye contact : Adverse symptoms may include the following: pain or irritation watering redness 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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

: Use an extinguishing agent suitable for the surrounding fire.
: None known.
: In a fire or if heated, a pressure increase will occur and the container may burst. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.
: Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides

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Section 5. Fire-fighting measures

Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, prote	tive equipment and emergency procedures
For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialised 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 in "For non-emergency personnel".
Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods and materials for c	ntainment and cleaning up
Small spill	: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or

Section 7. Handling and storage

Precautions for safe handling		
Protective measures	: Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.	

Section 1 for emergency contact information and Section 13 for waste disposal.

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Section 7. Handling and storage

Special precautions	: Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be stored in purpose-built containers or in metal containers with tight-fitting, self-closing lids. Contaminated materials should be removed from the workplace at the end of each working day and be stored outside. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
Advice on general occupational hygiene	: 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. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	: Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in original container protected from direct sunlight 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. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
2-butoxyethanol	ACGIH TLV (United States, 6/2013).
	TWA: 20 ppm 8 hours.
	OSHA PEL (United States, 2/2013).
	Absorbed through skin.
	TWA: 240 mg/m ³ 8 hours.
	TWA: 50 ppm 8 hours.
aluminium powder (stabilised)	ACGIH TLV (United States, 6/2013).
	TWA: 1 mg/m ³ 8 hours. Form: Respirable
	fraction
	OSHA PEL (United States, 2/2013).
	TWA: 5 mg/m ³ , (as Al) 8 hours. Form:
	Respirable fraction
	TWA: 15 mg/m ³ , (as Al) 8 hours. Form: Total
	dust
Isopropyl alcohol	ACGIH TLV (United States, 6/2013).
	STEL: 400 ppm 15 minutes.
	TWA: 200 ppm 8 hours.
	OSHA PEL (United States, 2/2013).
	TWA: 980 mg/m ³ 8 hours.
	TWA: 400 ppm 8 hours.

А = Acceptable Maximum Peak

S

= Potential skin absorption

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Section 8. Exposure controls/personal protection

ACGIH	= American Conference of G	overnmental Industrial Hygienists.	SR	 Respiratory sensitization
С	 Ceiling Limit 		SS	 Skin sensitization
F	= Fume		STEL	 Short term Exposure limit values
IPEL	= Internal Permissible Expos	ure Limit	TD	= Total dust
OSHA	= Occupational Safety and H		TLV	= Threshold Limit Value
R	= Respirable		TWA	= Time Weighted Average
Z		ubpart Z - Toxic and Hazardous Substances		
Consult	t local authorities for ac	ceptable exposure limits.		
	nmended monitoring :	If this product contains ingredients with atmosphere or biological monitoring m the ventilation or other control measure	ay be re es and/c uld be m nents for	equired to determine the effectiveness of or the necessity to use respiratory ade to appropriate monitoring standards.
Approp controls	• •	If user operations generate dust, fume local exhaust ventilation or other engin airborne contaminants below any reco	eering c	controls to keep worker exposure to
Environ controls	•	Emissions from ventilation or work pro they comply with the requirements of e	cess eq environm eering n	uipment should be checked to ensure nental protection legislation. In some nodifications to the process equipment
Individu	ual 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 Skin protection	: Chemical splash goggles.
Hand protection Gloves	 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. For prolonged or repeated handling, use the following type of gloves:
	Recommended: nitrile rubber, butyl rubber
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.

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Section 8. Exposure controls/personal protection

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.

Section 9. Physical and chemical properties

<u>Appearance</u>		
Physical state	:	Liquid.
Color	:	Orange.
Odor	1	Not available.
Odor threshold	1	Not available.
рН	4	Not available.
Melting point		Not available.
Boiling point		>37.78°C (>100°F)
Flash point	1	Closed cup: >93.33°C (>200°F)
Material supports combustion.	:	Yes.
Auto-ignition temperature	1	Not available.
Decomposition temperature	1	Not available.
Flammability (solid, gas)	1	Not available.
Lower and upper explosive (flammable) limits	:	Lower: 9.9%
Evaporation rate	1	0.4 (butyl acetate = 1)
Vapor pressure	:	2.3 kPa (17.3 mm Hg) [room temperature]
Vapor density	1	Not available.
Relative density	:	1.01
Density(lbs / gal)	:	8.43
Solubility	:	Partially soluble in the following materials: cold water.
Partition coefficient: n- octanol/water	:	Not available.
Viscosity	:	Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)
Volatility	:	83% (v/v), 81.61% (w/w)
% Solid. (w/w)	1	18.39

Section 10. Stability and reactivity

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	The product is stable.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.

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Section 10. Stability and reactivity

	-	
Hazardous decomposition products	:	Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.
Incompatible materials	:	Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Conditions to avoid	:	When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-butoxyethanol	LD50 Dermal LD50 Oral	Rabbit Rat	220 mg/kg 250 mg/kg	-
Isopropyl alcohol	LC50 Inhalation Vapor LD50 Dermal LD50 Oral	Rat Rabbit Rat	72600 mg/m ³ 12800 mg/kg 4.396 g/kg	4 hours - -

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-butoxyethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Severe irritant	Rabbit	-	100 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Conclusion/Summary	
Skin	: There are no data available on the mixture itself.
Eyes	: There are no data available on the mixture itself.
Respiratory	: There are no data available on the mixture itself.
Sensitization	
Conclusion/Summary	
Skin	: There are no data available on the mixture itself.
Respiratory	: There are no data available on the mixture itself.
Mutagenicity	
Conclusion/Summary	: There are no data available on the mixture itself.
Carcinogenicity	
Conclusion/Summary	: There are no data available on the mixture itself.
Classification	

Product name ORANGE FLASH

Section 11. Toxicological information

oduct/ingredient name	OSHA	IARC	NTP
-butoxyethanol opropyl alcohol	-	3 3	-
Carcinogen Classificatio	n code:	0	
IARC: 1, 2A, 2B, 3	, 4 e a human car	rcinogen; Rea	sonably anticipated to be a human carcinogen
eproductive toxicity			
Conclusion/Summary	: There are	e no data a	vailable on the mixture itself.
eratogenicity			
Conclusion/Summary	: There are	e no data a	vailable on the mixture itself.
pecific target organ toxicity			
ame			Catego
opropyl alcohol			Categor
pecific target organ toxicit	(repeated	<u>exposure)</u>	
ame			Catego
-butoxyethanol			Categor
irget organs	cornea. Contains	material w	hich causes damage to the following organs: brain, eye, le hich may cause damage to the following organs: blood, kic
	cornea. Contains lungs, the	material wi e nervous s	hich causes damage to the following organs: brain, eye, le
arget organs	cornea. Contains lungs, the	material wi e nervous s	hich causes damage to the following organs: brain, eye, le hich may cause damage to the following organs: blood, kic ystem, liver, spleen, lymphatic system, upper respiratory to
arget organs epiration hazard ot available.	cornea. Contains lungs, the bone ma	e material wi e nervous s rrow, centra	hich causes damage to the following organs: brain, eye, le hich may cause damage to the following organs: blood, kic ystem, liver, spleen, lymphatic system, upper respiratory to
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arget organs apiration hazard ot available. formation on the likely route otential acute health effect	cornea. Contains lungs, the bone ma	e material wi e nervous s rrow, centra u re	hich causes damage to the following organs: brain, eye, le hich may cause damage to the following organs: blood, kic ystem, liver, spleen, lymphatic system, upper respiratory to al nervous system (CNS).
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arget organs appiration hazard ot available. prmation on the likely route ptential acute health effect Eye contact nhalation Skin contact	cornea. Contains lungs, the bone ma es of expos : Causes s : No know : Irritating oms : Adverse pain or ir watering	material wi e nervous s rrow, centra serious eye n significan n significan to mouth, th symptoms	hich causes damage to the following organs: brain, eye, le hich may cause damage to the following organs: blood, kic ystem, liver, spleen, lymphatic system, upper respiratory to al nervous system (CNS). irritation. t effects or critical hazards. t effects or critical hazards.
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Product name ORANGE FLASH

Section 11. Toxicological information

Conclusion/Summary	: There are no data available on the mixture itself. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.
<u>Short term exposure</u>	
Potential immediate effects	: There are no data available on the mixture itself.
Potential delayed effects	: There are no data available on the mixture itself.
Long term exposure	
Potential immediate effects	: There are no data available on the mixture itself.
Potential delayed effects	: There are no data available on the mixture itself.
Potential chronic health effe	ects
General	: May cause damage to organs through prolonged or repeated exposure.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.
Numerical measures of toxic	<u>sity</u>
Acute toxicity estimates	

Route	ATE value
Oral	5585.4 mg/kg
Dermal	12614.9 mg/kg
Inhalation (gases)	51606.3 ppm
Inhalation (vapors)	126.1 mg/l
Inhalation (dusts and mists)	17.2 mg/l

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegrad	ability
2-butoxyethanol	-	-	Readily	
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Section 12. Ecological information

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2-butoxyethanol	0.81	-	low
Isopropyl alcohol	0.05	-	low

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Section 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains
	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

		· · · · · · · · · · · · · · · · · · ·
DOT	IMDG	ΙΑΤΑ
Not regulated.	Not regulated.	Not regulated.
-	-	-
-	-	-
-	-	-
No.	No.	No.
Not applicable.	Not applicable.	Not applicable.
	Not regulated. - - - No.	Not regulated. Not regulated. - - - - - - No. No.

Additional information

- **DOT** : None identified.
- **IMDG** : None identified.

Product name ORANGE FLASH

14. Transport information

IATA

: None identified.

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.

Section 15. Regulatory information

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.
China inventory (IECSC)	: All components are listed or exempted.
Europe inventory (REACH)	: Please contact your supplier for information on the inventory status of this material.
Japan inventory (ENCS)	: At least one component is not listed.
Korea inventory (KECI)	: All components are listed or exempted.
New Zealand(NZloC)	: Not determined.
Philippines inventory (PICCS)	: At least one component is not listed.
United States	
U.S. Federal regulations :	
<u>SARA 302/304</u>	
SARA 304 RQ : N	lot applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification

: Immediate (acute) health hazard Delayed (chronic) health hazard

Composition/information on ingredients

Name	hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
2-butoxyethanol	Yes.	No.	No.	Yes.	Yes.
aluminium powder (stabilised)	Yes.	No.	No.	No.	No.
Isopropyl alcohol	Yes.	No.	No.	Yes.	No.

SARA 313

Supplier notification

Chemical name	CAS number	Concentration
: 2-butoxyethanol	111-76-2	5 - 10
Aluminium powder (stabilized)	7429-90-5	1 - 5
Isopropyl alcohol	67-63-0	1 - 5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

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Product name ORANGE FLASH

Section 15. Regulatory information

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

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Health : 3 * Flammability : 1 Physical hazards : 0 (*) - Chronic effects
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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 MSDSs under 29 CFR 1910.1200, 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.

National Fire Protection Association (U.S.A.)

Health : 3 Flammabi	ility : 1 Instability : 0
Date of previous issue	: No previous validation.
Organization that prepared the MSDS	: EHS
Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Internediate 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

Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.